

FLOYD CLYMER'S HISTORICAL MOTOR SCRAPBOOK



NUMBER ONE

DELUXE
EDITION
2.00

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THIS MOTOR SCRAPBOOK
is the property of

My first car was a.....

Model.....Color.....

Cost.....Date Bought.....

Bought From.....

Remarks.....

**FLOYD CLYMER'S HISTORICAL
MOTOR SCRAPBOOK**

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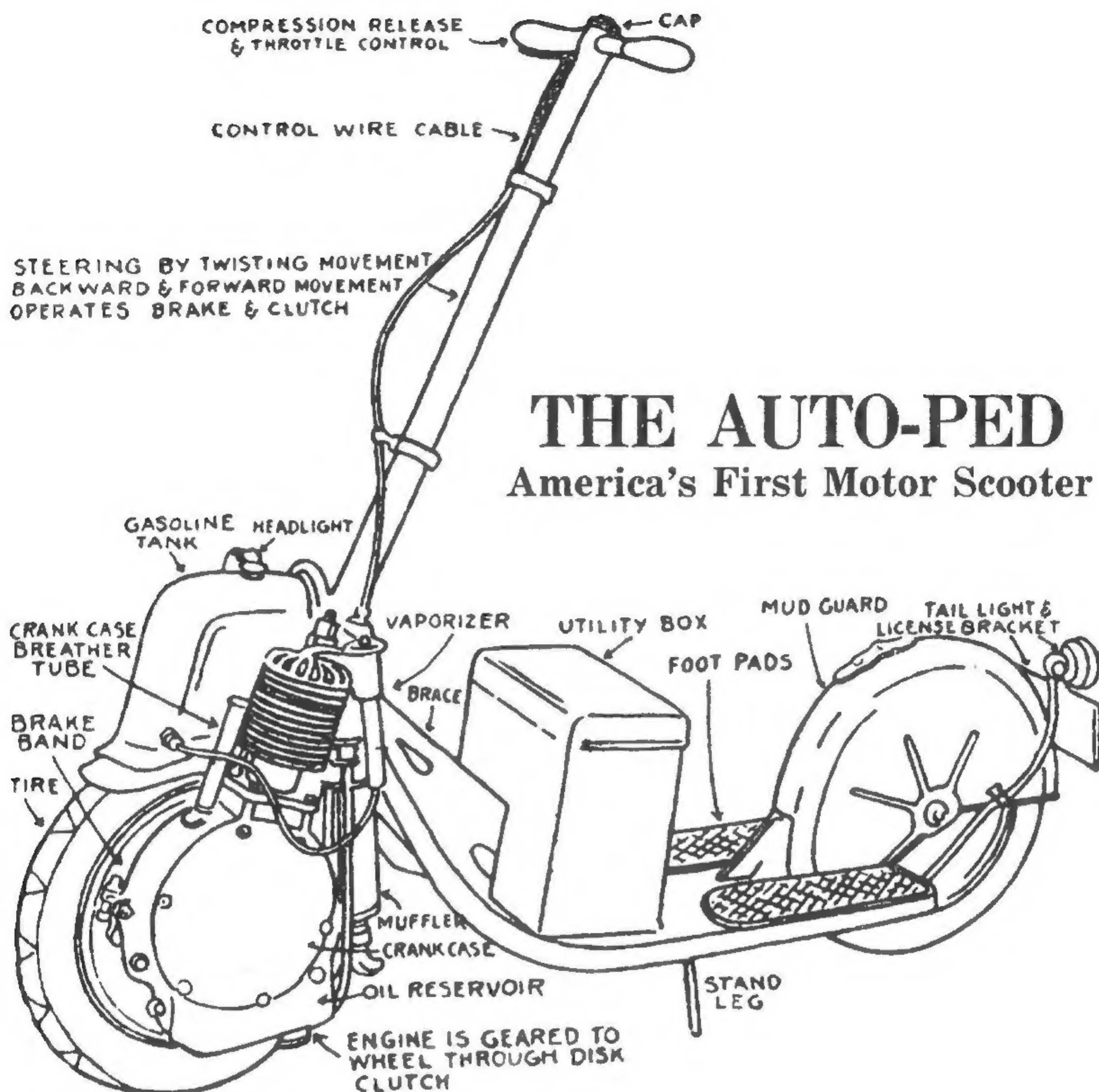
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The operator rode in standing position . . . there was no seat. Clutch and brake were operated by moving handle bar lever back and forth. Lighting was by flywheel generator. Front wheel drive engine was 2 H.P. and the machine would do 35 miles an hour. It was built by Auto-Ped Co. of America, New York, prior to the first world war.

NOTE: Over 2200 different makes of cars were manufactured in the United States since the inception of the automotive industry. Naturally, we can illustrate only a few. More will be shown in future editions of the Motor Scrapbook.

MY SCRAPBOOK

By Floyd Clymer

This Scrap Book of Motorcycles and Automobiles is dedicated to those who in the early days of the industry pioneered new ideas and improvements that seemed of great importance at the time.

To those fortunate individuals who owned or drove the early day cars and motorcycles, the illustrations and descriptions contained in this scrap book will be of interest.

This is the first edition of several that will be published, each differing from the previous one. Since I was seven years of age I have been closely connected with automobiles and motorcycles and to some extent with airplanes. To me these pages recall the many interesting incidents that occurred during my life. I am sure that others will find this book of interest. While I have accumulated a tremendous amount of old material—such as publications, catalogs, photographs and specifications of early models—I want to thank Wellington Everett Miller for assisting me in compiling much of the data and information contained herein.

* * * * *

Gasamobile! . . . Ever hear of it? It was the first car I ever saw. In 1902 my father, a small town Doctor, bought the first car to come into northern Colorado. He took me to Denver, where he bought a new 1902 curved dash Oldsmobile. It had wire wheels, a one-cylinder engine in the rear, chain drive and a tiller steering lever. It was a good car.

We drove from Denver to our home in Berthoud in six hours—54 miles. Not bad! Not good, you think, but in those days people dumped ashes in the street in small towns, and we accumulated three nails enroute. Every few miles we needed water. We carried a bucket and irrigation ditches, common in Colorado, came in handy.

We struggled with the first Olds for a year. Then later on Dad bought a "Big" 7 H.P. Olds. This one had wood artillery wheels and brake bands on the rear wheels. And we had a "Dos-a-dos" seat. On Sunday drives my brother, sister and I occupied the rear seat over the engine with our feet dangling overboard. Dad built up the foot rest so our short legs would reach it and a strap across the seat held us in.

About that time a Rambler came near our town, then a banker acquired an Orient Buckboard with engine mounted on the rear axle. Then soon came a Cadillac, one cylinder, with a dual spark plug and a crank on what we called the "wrong side"—and it had a wheel steering. It was a good car. I've never known of a "bum" Cadillac—even the first ones were good!

About this time Ramson E. Olds, who founded Oldsmobile, started a new company, taking his initials, R.E.O., and he made the Reo car. Through loyalty to a salesman, Lynn Mathewson, who had sold us two Oldsmobiles and who now had taken on the Reo, we changed to Reo. Again to Denver we went to drive it home. I will never forget the first ride. There WAS a car! Wheel steering, hood (or bonnet) as we then called it, out in front. All it housed was a radiator, gas and water tank. The engine was further forward than in the Olds—it was directly under the seat. It had a compression release to make it easier to start. The crank was detachable and in the Olds it was stationary. Oh, how that Reo could kick and the crank would slip off! But it was a good car. This car had a wire screen that extended from the carburetor and covering it was a black sock. On cold mornings you flooded the carburetor until gas ran out of the sock, then it was ready to start. Could this have been the first air cleaner. Perhaps so!

The Reo had wooden fenders. Dad always took the fenders off his cars—they shook loose and, besides, he wanted to see the wheels turn and where they were going. The Reo had gas lights. A generator with carbide. Water dripped on the carbide (excepting when the water froze) and, with a little gas bag to equalize the pressure, you had lights. Sometimes one jet of the burner became clogged and the flame went haywire and scorched or broke the reflector. We bought a windshield for the Reo. That was an accessory. It folded down over the hood.

Then Reo came out with a two cylinder opposed, five passenger model. We debated whether to stick with Reo or jump to a new and unknown make, just

out—the Maxwell. Maxwell had a shaft drive with a two-cylinder opposed engine in front—under the hood—and it cranked in front—and no chain to break—and it looked like a step in the right direction. Dad bought it and with it we got the agency. In those days you bought a car and they threw in the agency. We still had Reo, and now both Maxwell and Reo agencies.

I was then eleven and Dad decided if I was ever going to get into business I had better start. He gave me a large office room in the front of his building. This room had originally been built for a dentist, but the town was so small most dentists got hungry after a few weeks and went to more fertile fields. So I had the office originally used by dentists. A sign "Berthoud Auto Co." was placed on the window.

I went to Denver alone and bought \$400 worth of supplies from the Auto jobbers that were there—supplies such as carbide, Zeroline oil, generator tubing, headlights, leather pads and aluminum numbers to rivet on when the county gave you your license number (for by now there were other cars being licensed), inner tubes and clincher casings, tire chains, coils, points and a few other odds and ends. I had oil in barrels and in five gallon cans. It was heavy oil like molasses. In the winter time, to make it lighter weight, we added kerosene. We had all grades from 90 down to 0—the more kerosene the lighter the oil. When I sold a speedometer it had to be ordered special.

In neighboring towns Hupmobile, Stanley, Mobile, White Steamers, Rambler, Buick, Queen and others were coming in. A wealthy farmer east of town went wild and paid \$4000 for a 7-passenger Thomas Flyer (the make that won the New York to Paris Race). And even then Ford was a contender.

By now I was selling cars—quite a few of them. I would go to Denver with each buyer, usually with as many members of his family as the car would carry, and we drove home. On the way home I taught the new owner how to drive. All sales were for cash. They either had it or could borrow at the bank. The local banker was quite a car enthusiast and he was not against a loan to a reliable man, even for the purchase of a car. No red tape—the buyer signed a note—in later years a chattel mortgage—and then came the finance companies.

Maxwell served us well—then the new E-M-F- "30" built by Studebaker caught our eye. It had 4 cylinders, a windshield and a top. But one thing they forgot to tell us in the sales talk was that the transmission on the rear axle was not so hot. I sold several E-M-F- cars and they were quite good. My competitors referred to them as the "Easy-Marks-Favorite" or "Every-Morning-Fixem". There were other names they called them, too.

Ford was now making it tough with his low priced 4-cylinder car. He had fought the Selden patent and never became a member of the Association. He finally won. Had it not been for Ford, it is quite possible that Selden would have collected a royalty on every car built in America for years to come.

About this time I got the motorcycle bug. I saw a Thomas Auto-Bi, built in Buffalo, N. Y. I bought a Yale-California, and later on, a Thomas Auto-Bi. Then my dad decided to move to Washington State. He sold his practice, and about that time Studebaker came out with the Flanders "20". It was a light 4-cylinder car with a sliding gear, 2-speed progressive transmission and, as was customary with Studebaker at that time, the transmission was on the rear axle just in front of the differential. It had thermo-syphon cooling and, as I recall, a cone clutch—it jumped from one to three feet every time you engaged the clutch.

I was then fourteen years old and my brother, Elmer, was eleven. We got an idea! Why not drive a Flanders "20"—just the two of us—from Colorado to Washington? With the idea hot in my mind I went to a Studebaker dealers' meeting in Denver, where I met E. LeRoy Pelletier, the small excitable Frenchman who was the advertising manager of Studebaker. I got him in the corner. I explained the idea. He had known of the E-M-F- sales I had made, and my age impressed him. He went for the idea hook, line and sinker. He got Dad's permission, and wired the factory and got their permission. The next day he went to the local factory branch and authorized the Manager to turn over to us the finest Flanders "20" in stock. It had a detachable rear seat and a windshield. We got busy about tires. Diamond was then popular and they equipped the car with a new set and a spare, gratis. They gave us sweaters with Diamond Tires in big letters. They made a banner for the back of the car.

Pelletier arranged for it to be a big event. The Mayor of Denver and the Governor of Colorado were to send us off with letters and greetings to Mayor

Pratt of Spokane. That was to be our destination. I shall never forget being ushered into the Mayor's office—there I met big, jovial Robert W. Spear, the never forgotten Mayor and builder of Denver. He handed us a prepared letter and wished us well.

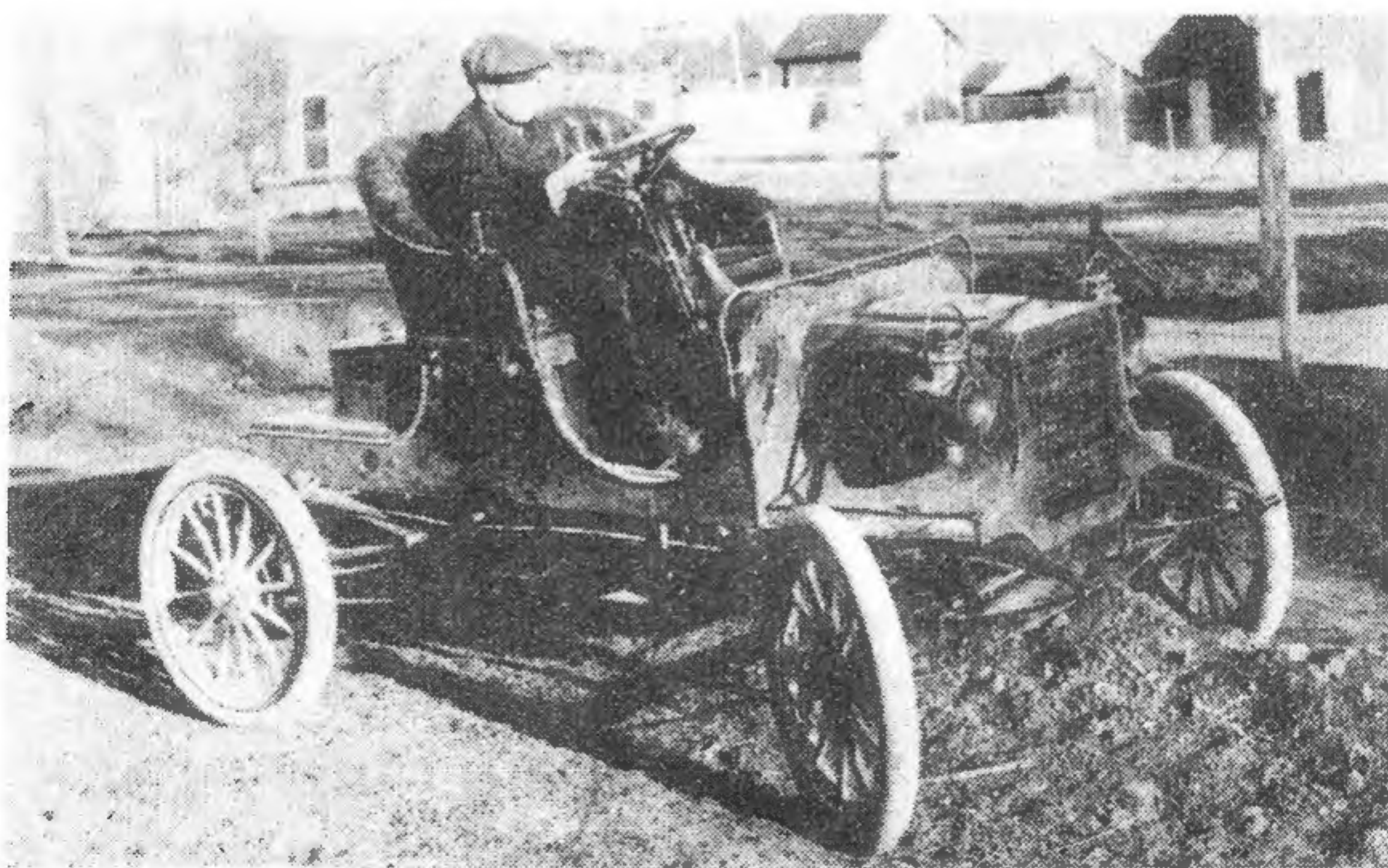
All of these preparations had required a couple of weeks.

First night we stopped at Berthoud our home town in Northern Colorado. Then next day on to Cheyenne, Wyoming. Newspaper men met us—we went to the State Capitol for photos with the Governor. Next day we headed West over the Continental Divide. In those days there were no roads—as we know them now—just winding trails, through sand and sagebrush. The Flanders was underpowered for its weight—we had troubles with the hills, and the sand. We carried wide strips of canvas sewed together, 100 feet long. The sand was so deep in places that those strips had to be placed down for the car to run on. The rear end would jump up and down. One day we made seven miles—slept on the prairie that night and we were two scared kids—coyotes howled and prairie dogs, though harmless, were everywhere. Now and then a cowboy would ride by and greet us the next day, or we would meet a sheep herder with his wagon. We had a few good meals with the sheepmen. Water was a problem. We could not carry enough at times to keep the Flanders satisfied—even with two 5-gallon cans and three water bags.

Our progress was slow. Then, near Fort Steele, Wyoming, the rear end went out—the sand was just too deep. We stayed there until the factory sent a mechanic out with a new rear end. We lost six days. He replaced the rear end in the open air, on a flag station platform. He checked the motor and we started again. By this time our hopes of ever reaching Washington were about shattered, as the car still jumped up and down when we got in the deep sand. Cowboys helped us—covered wagon drivers towed us at times. We kept at it—but finally in western Wyoming, after another transmission failure, we gave up the ghost. Reports were that roads we had passed over were far better than those ahead. We were even reported “missing” and as having died on the “desert” when we left the car to walk to the nearest town for help when the rear end left us the second time. We shipped the car back to Denver and went to Washington by train.

In the next edition I'll describe later events in my early day experiences with motorcars and motorcycles, and the starting of my racing experience and my flight with Walter Brookins in a Wright Bi-plane in 1910 at Walla Walla, Washington.

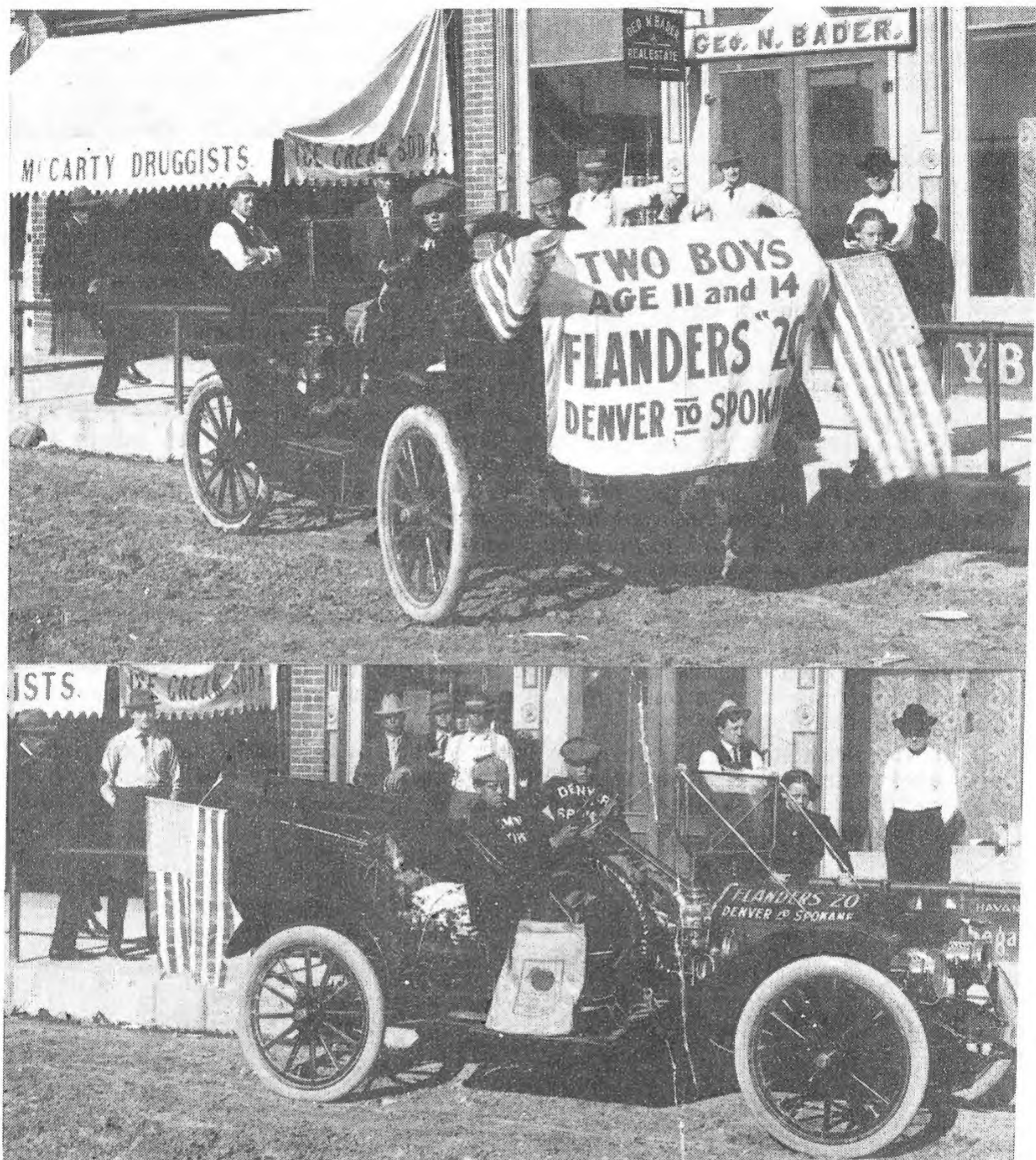
* * * * *



1905 REO SINGLE CYLINDER

This was our third car and first one with wheel steering. Note the smooth tread lugged on 28 x 3 tires, kerosene lamps. Hood housed the radiator, gasoline and water tanks. Engine was under seat, cranked on side. Turtle deck rear end for luggage was replaced for Sunday drive with detachable rear seat. I was ten when this was taken.

1910 FLANDERS "20" (Studebaker)



FLANDERS "20" TO START ON LONG CROSS COUNTRY RUN

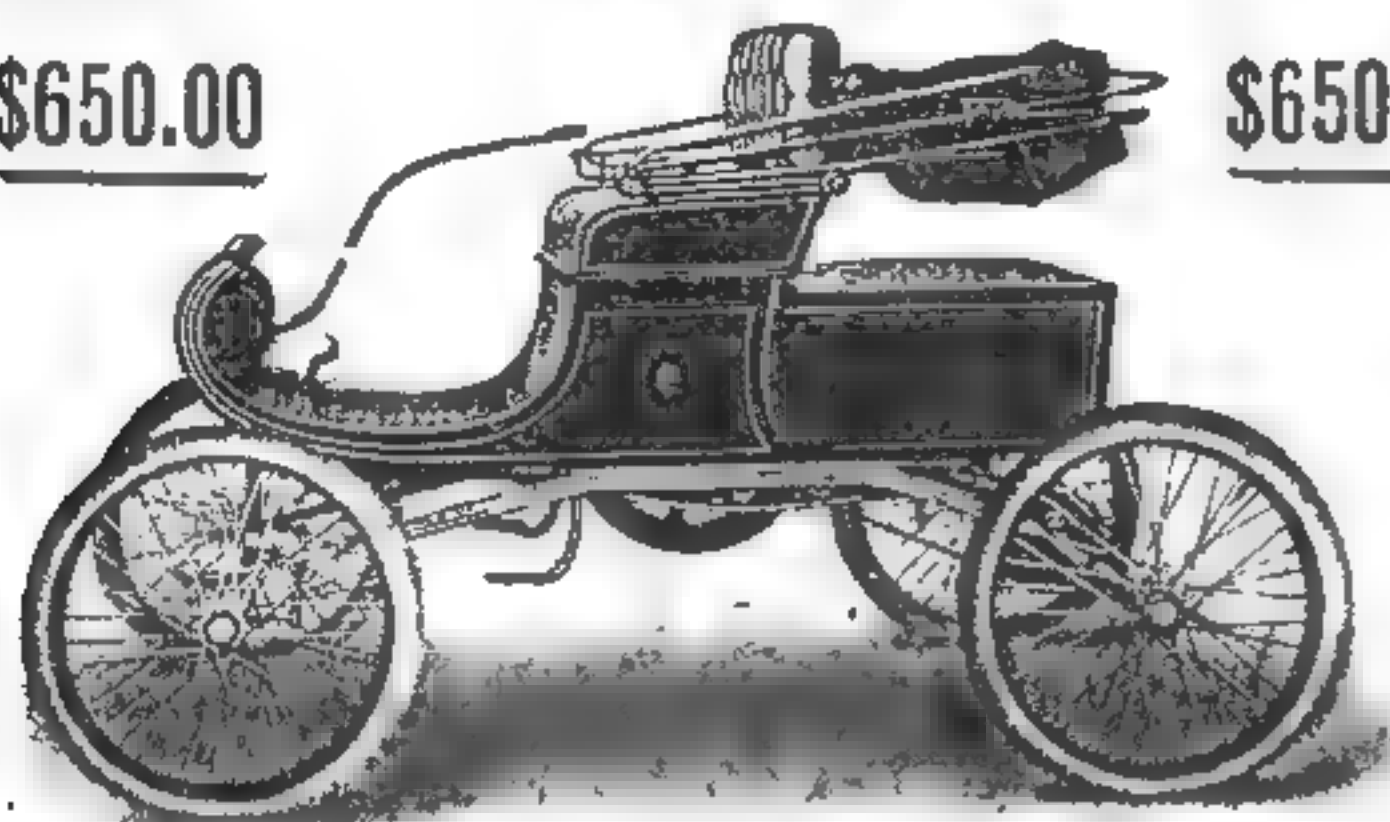
Floyd and Elmer "Bill" Clymer in the Flanders "20" which they will attempt a cross country drive from Denver to Spokane starting next week. The boys, sons of Dr. J. B. Clymer of Berthoud, are fourteen and eleven years old respectively, and are experienced automobilists. Floyd is known as the "kid agent," and has been selling automobiles at Berthoud since he was eleven years old. The Flanders is equipped with Diamond tires, solar lights with Presto Lite tank. Extra equipment includes desert water bags, supply of parts, top and windshield. The trip was arranged by E. Le Roy Pellitier, Advertising Manager of the Studebaker Corporation, sponsors of the run. The boys expect to average one hundred miles a day. In test runs the car has attained a speed of 44 miles an hour. They will carry letters from City and State officials.

—Motor Field Magazine — 1910.

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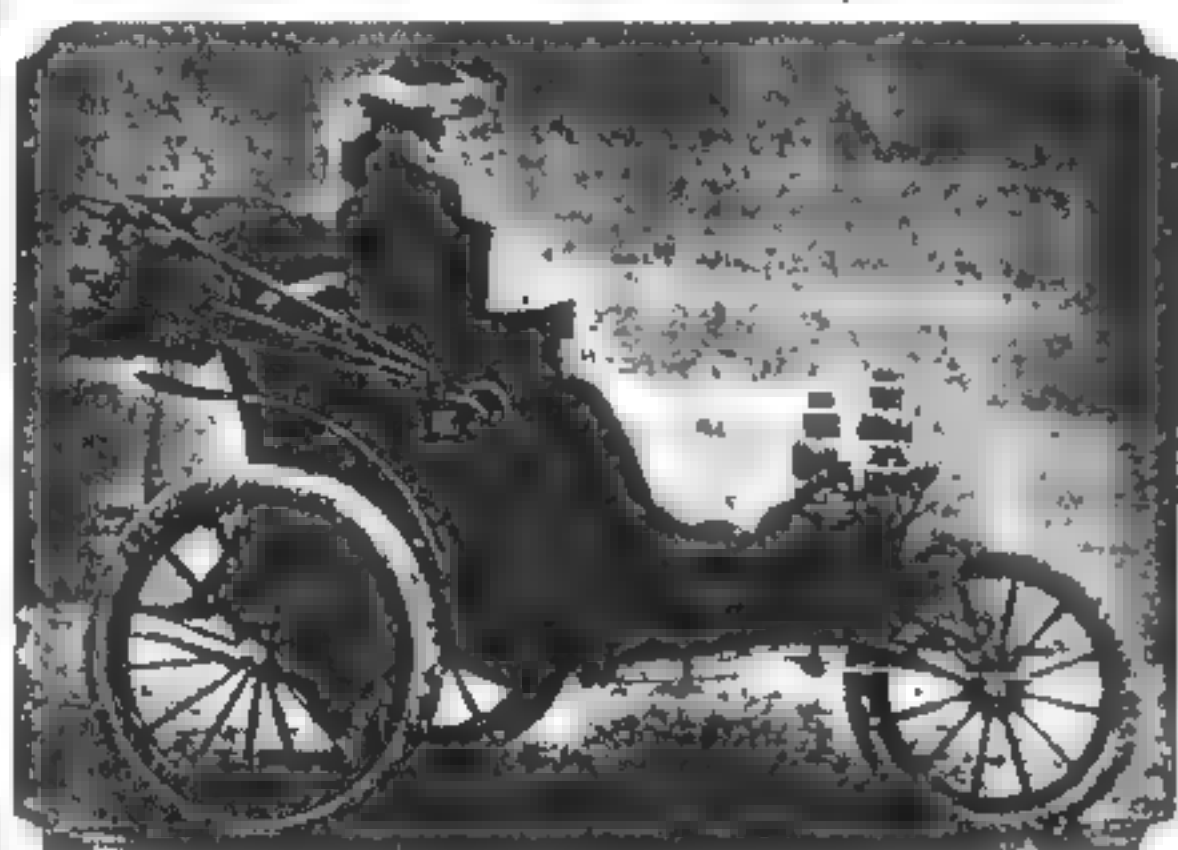
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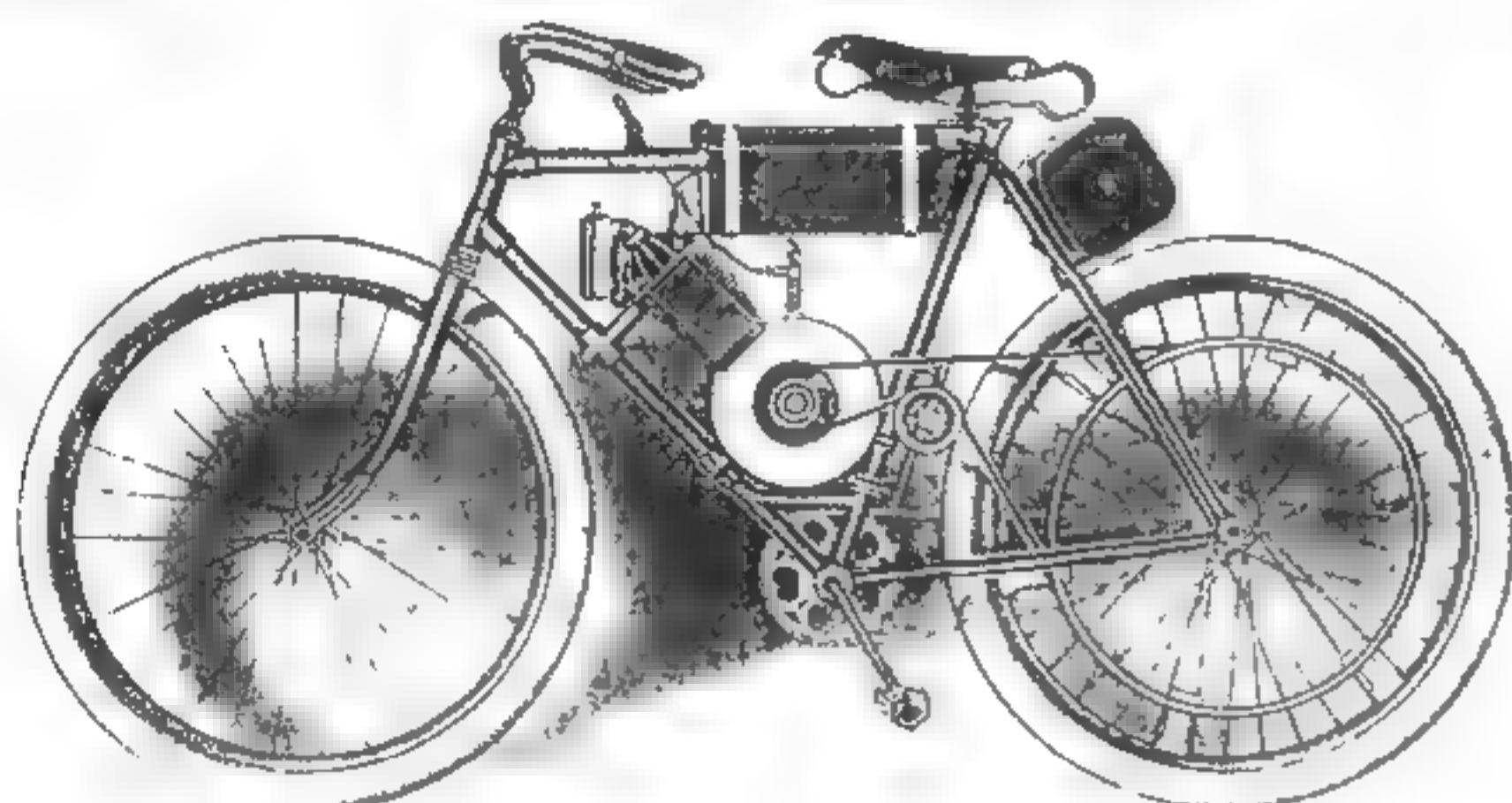
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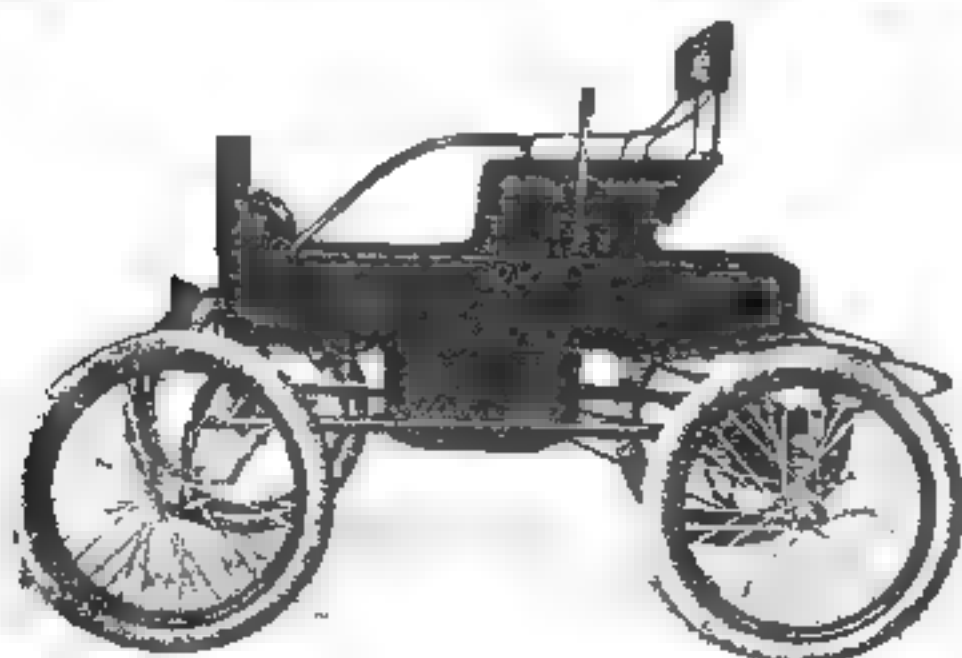
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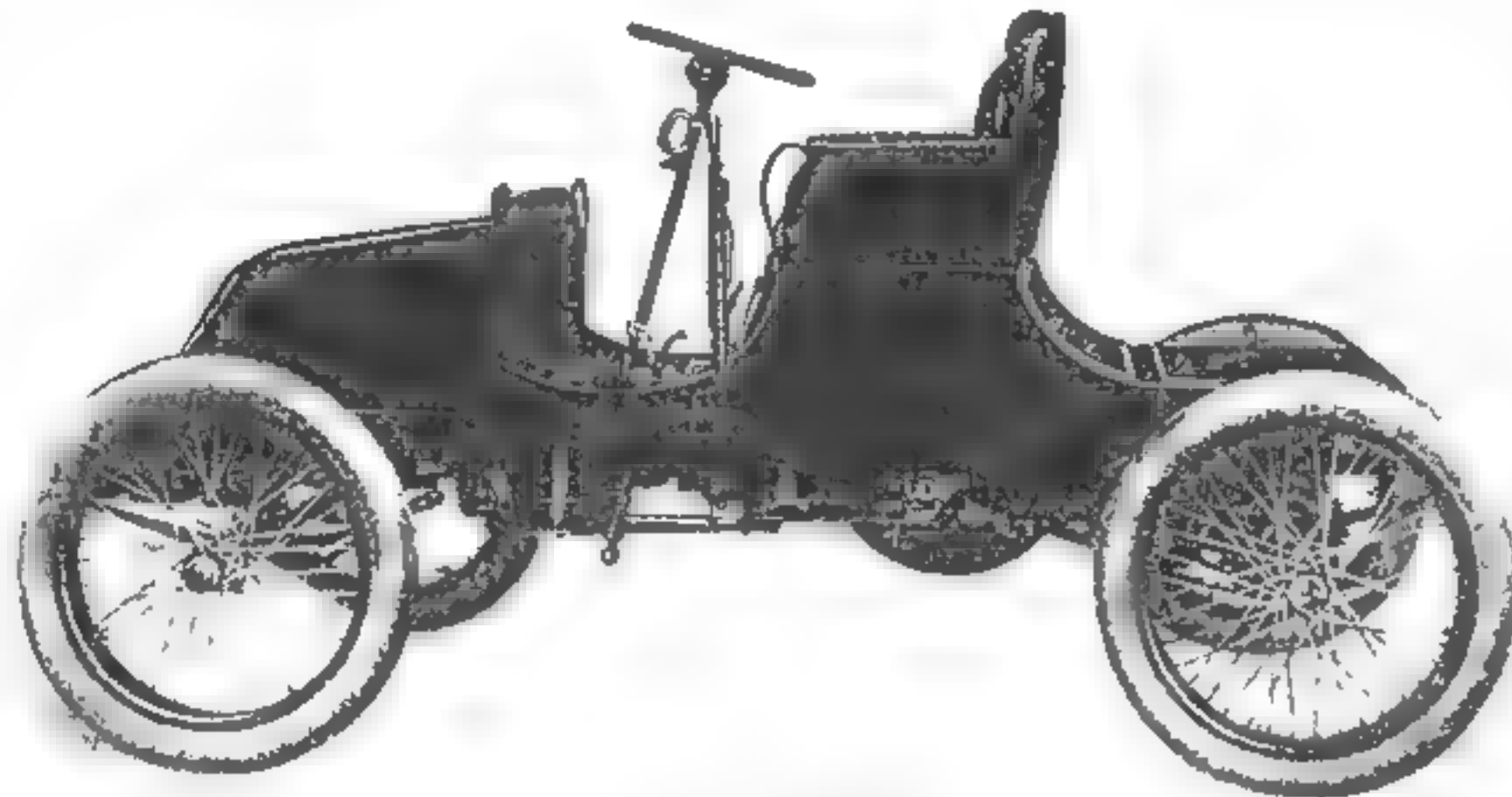
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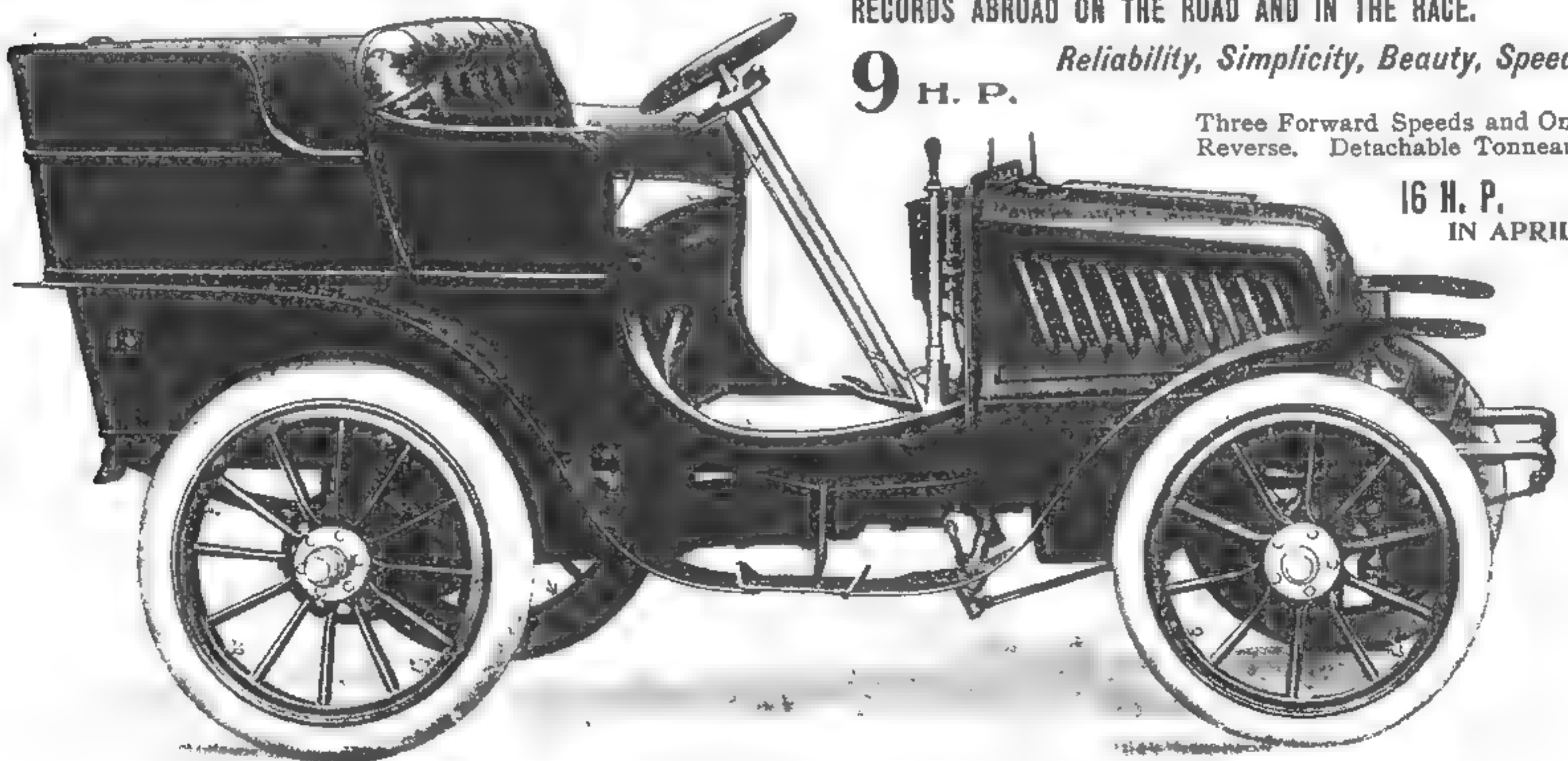
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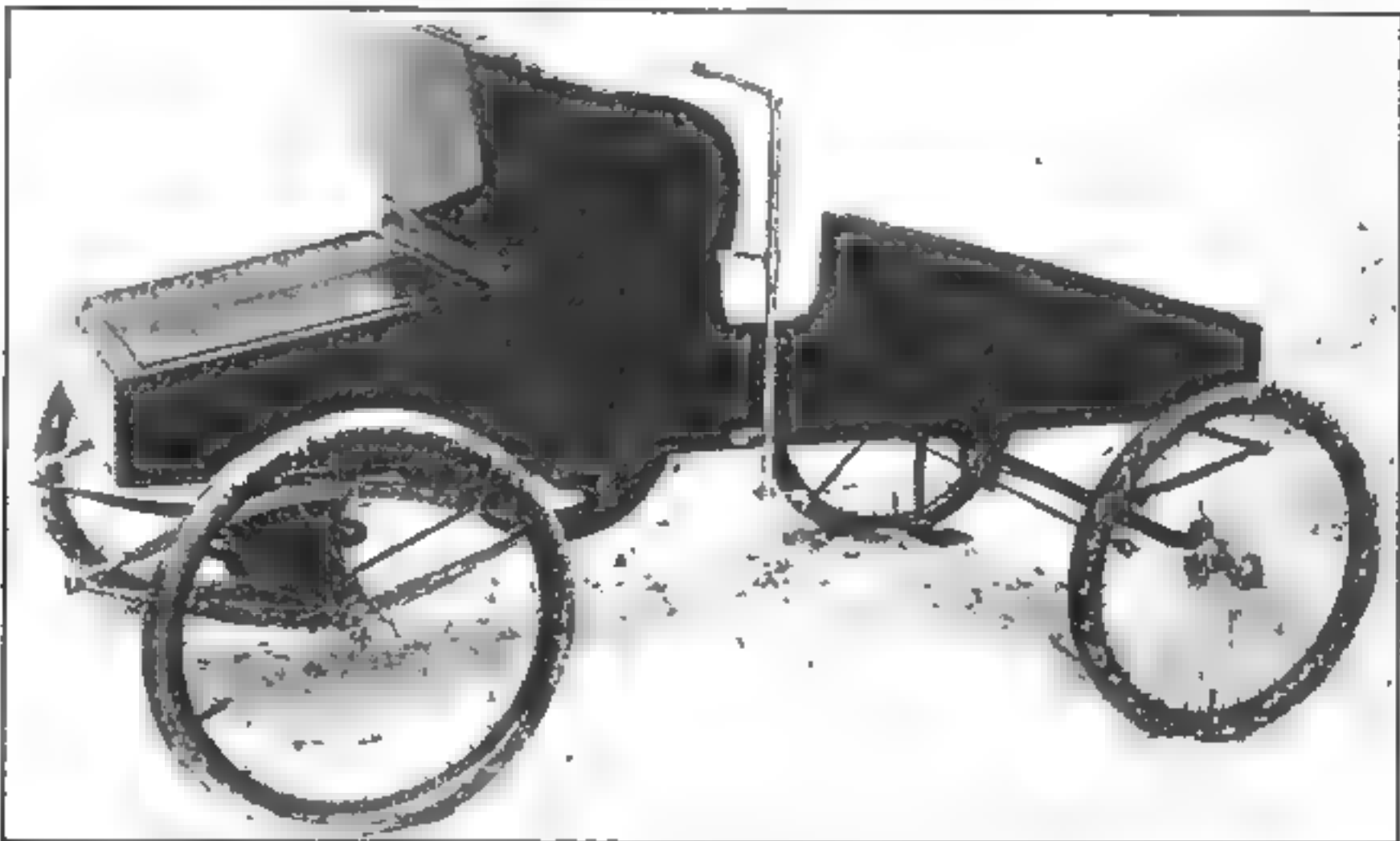
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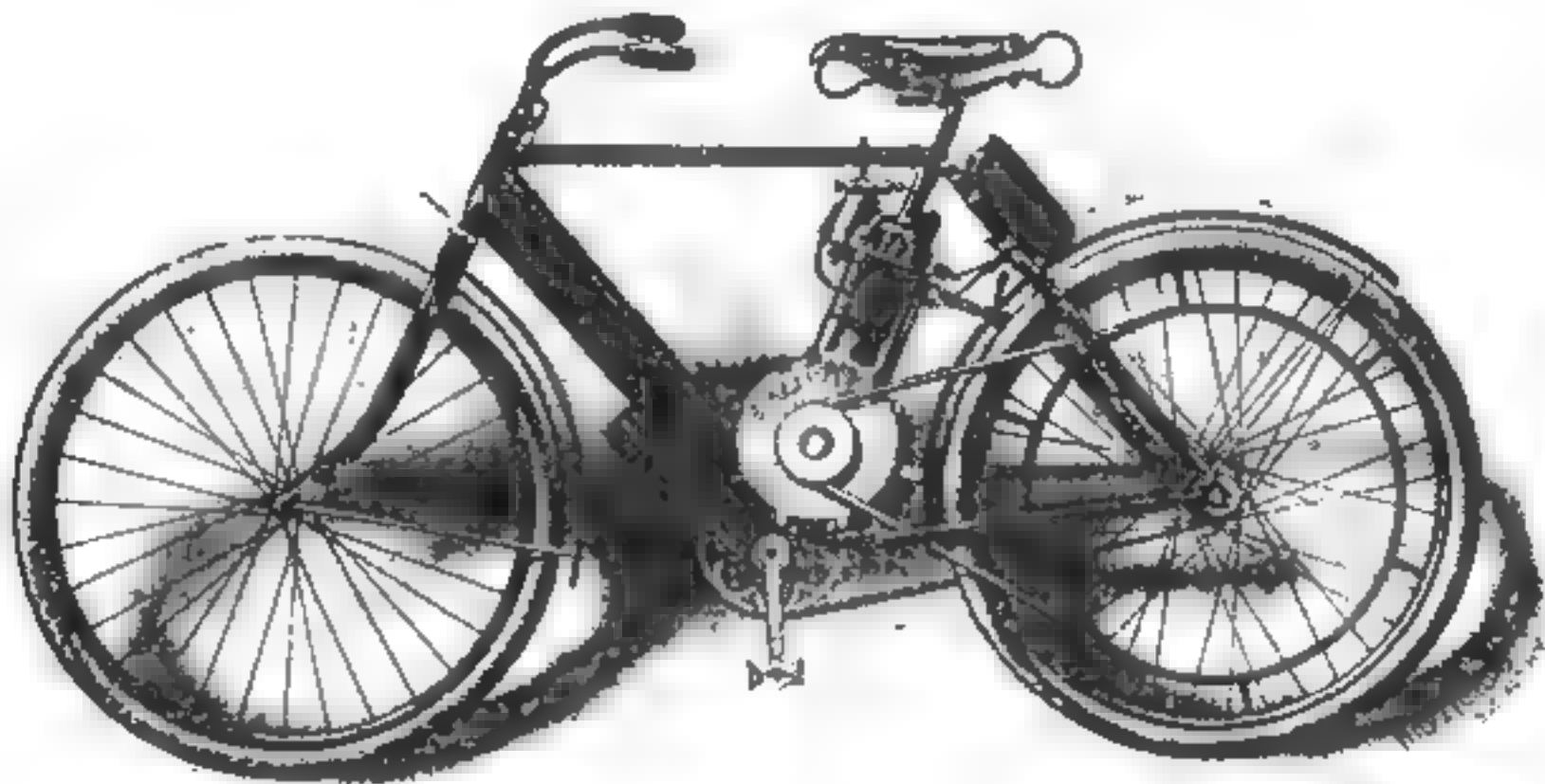
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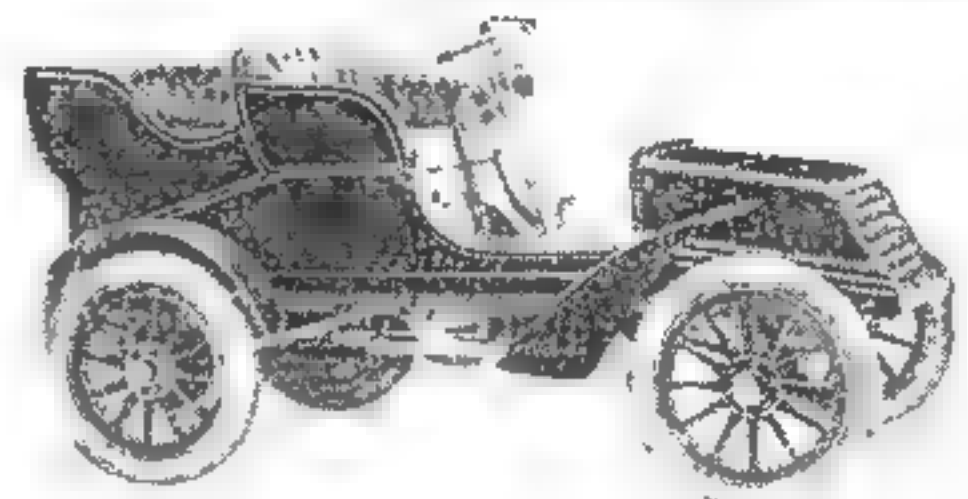
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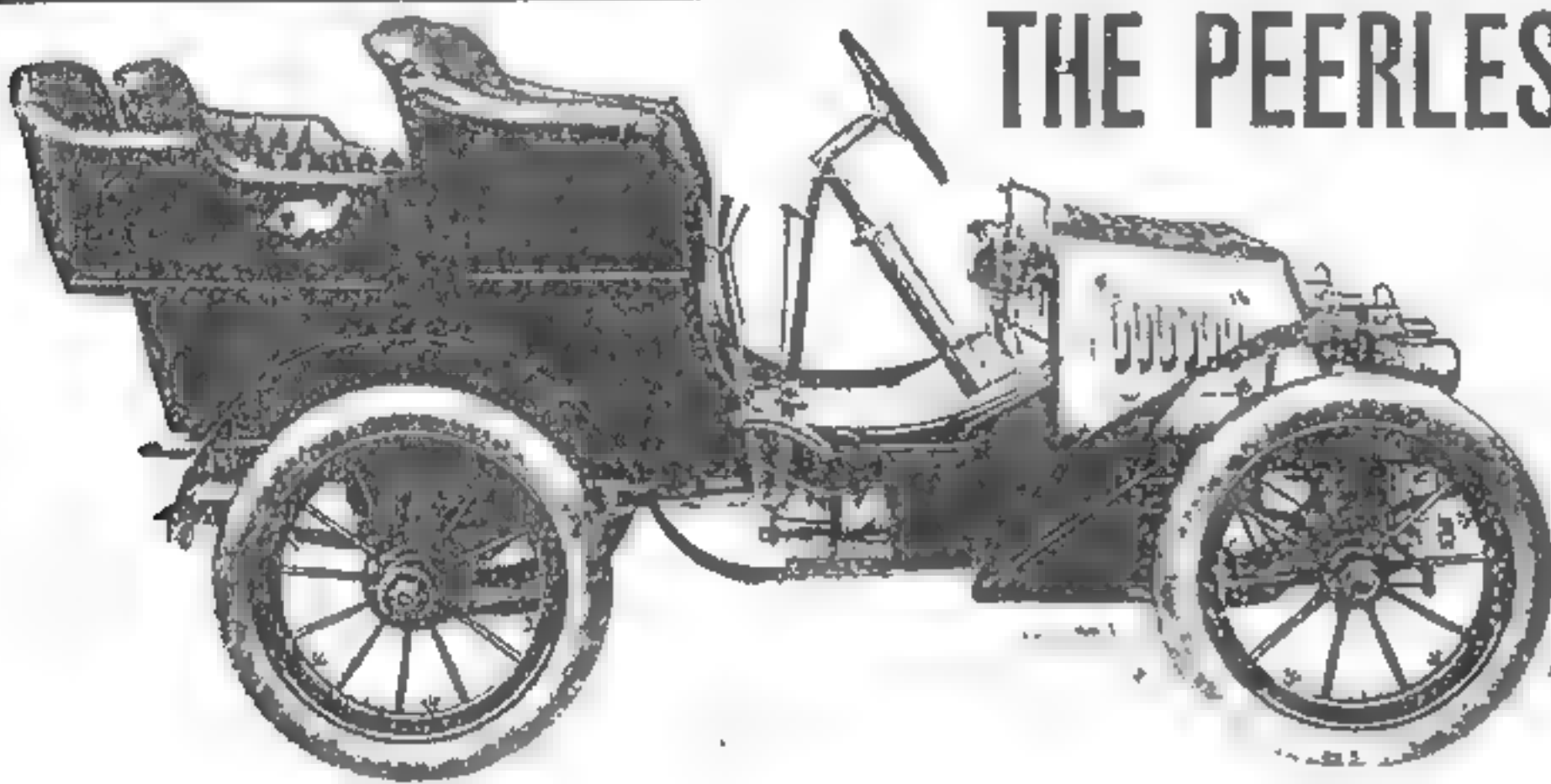
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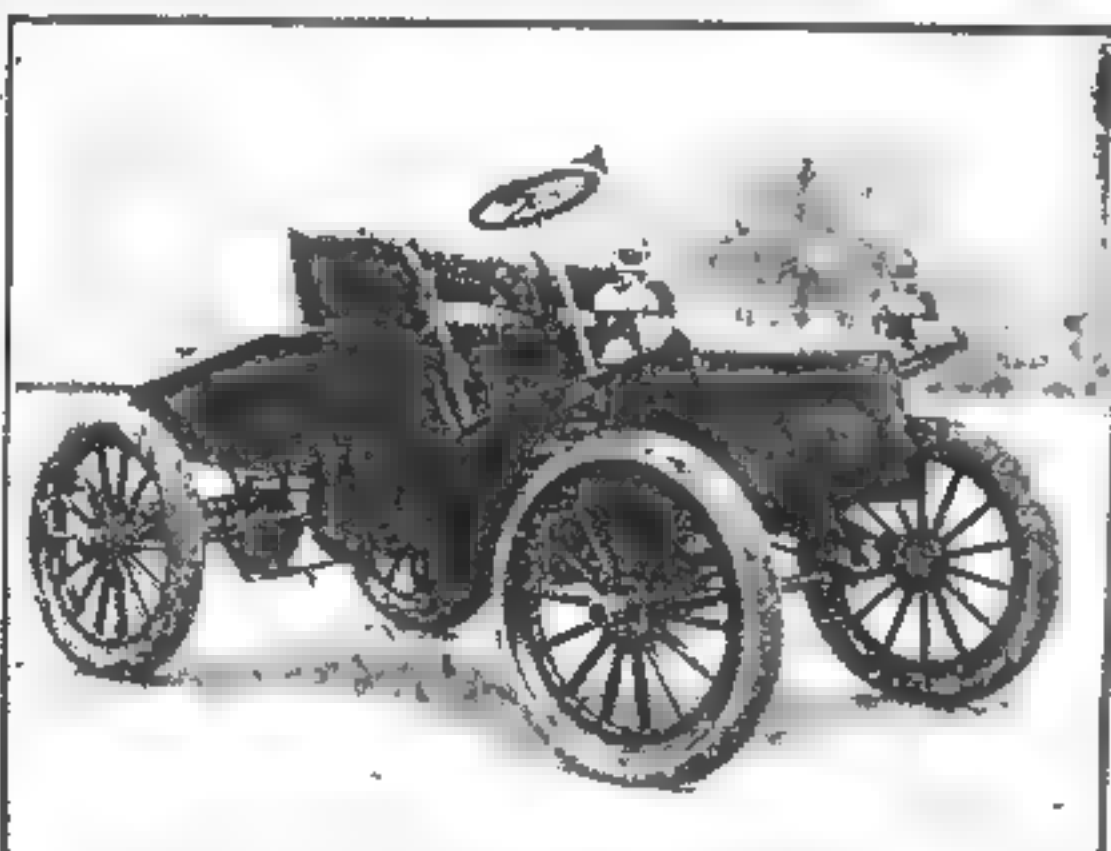
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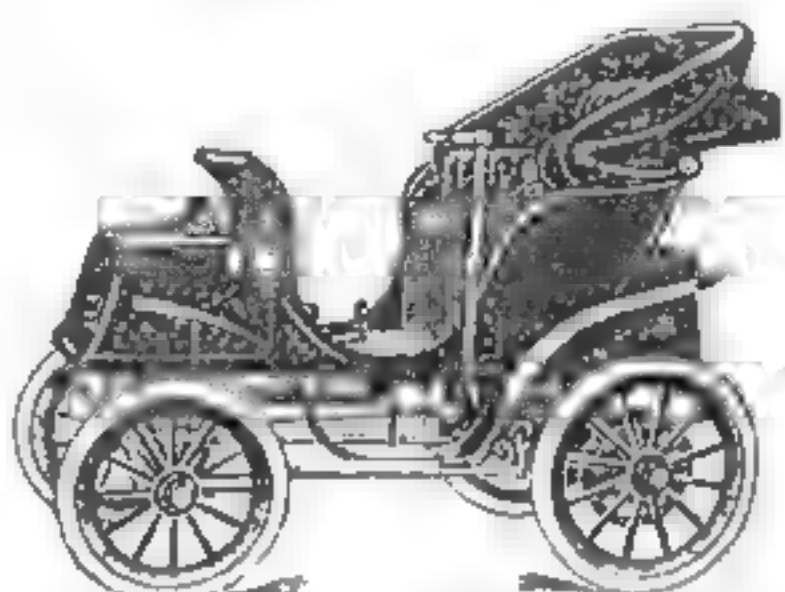
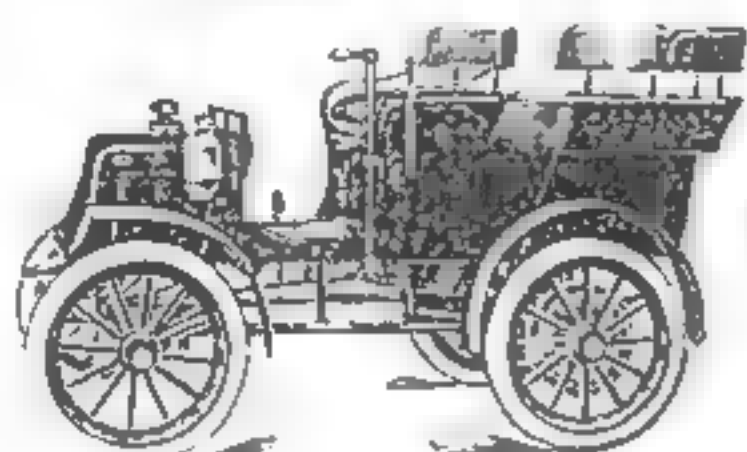
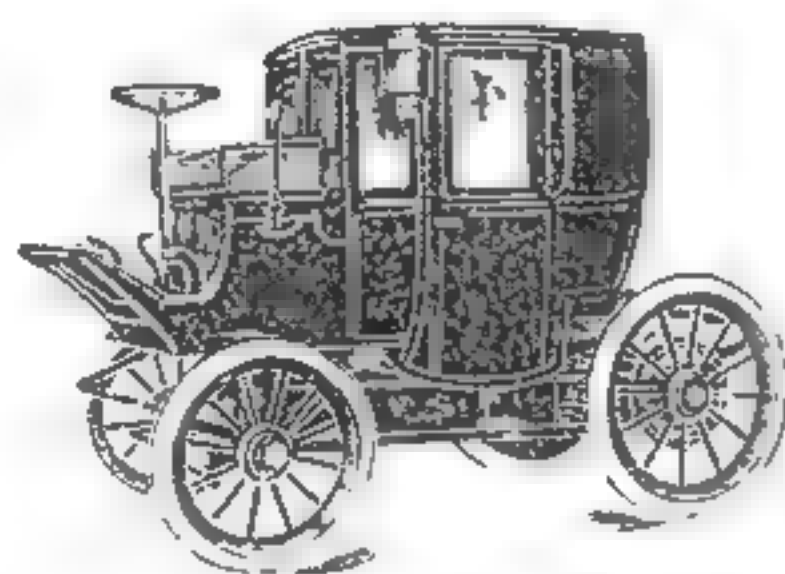
For all
Requirements.

Runabouts
Surreys
Tonneaus
Cabriolets
Broughams
Delivery
Wagons
Trucks
Police
Patrols
Ambulances

General Cata-
logue and detailed
information
on application.

ELECTRIC VEHICLE CO., Hartford, Conn.

New York, - - 100 Broadway.
Boston, 43-45 Columbus Avenue.
Chicago, 1421 Michigan Avenue.



Waverley

NO DIRT
NO ODOR
NO GREASE
NO BOTHER

STRONG
LIGHT
SERVICEABLE

OVER 60 MILES ON ONE CHARGE

PRICE \$850

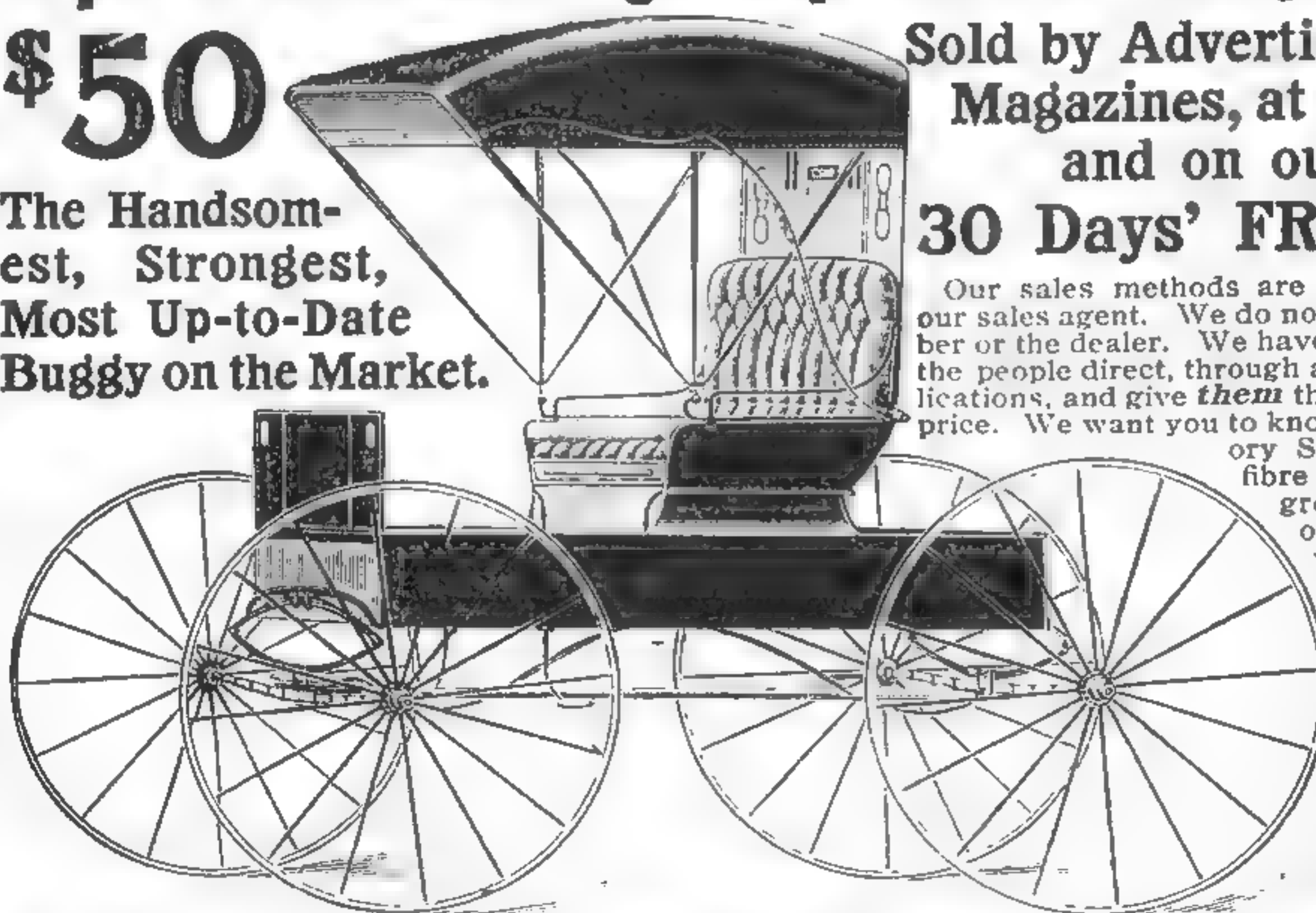
Waverley's
AND ALWAYS READY

INTERNATIONAL MOTOR CAR COMPANY.
WAVERLEY DEPARTMENT
INDIANAPOLIS, IND.
NEW YORK BRANCH, 31 FIFTH AVE.

Split Hickory Special Top Buggy

\$50

The Handsom-
est, Strongest,
Most Up-to-Date
Buggy on the Market.



Sold by Advertising in Leading
Magazines, at Factory Price,
and on our Liberal
30 Days' FREE Use Plan

Our sales methods are unique. This magazine is our sales agent. We do not do business with the jobber or the dealer. We have no agents. We deal with the people direct, through advertising in reliable publications, and give *them* the benefit of the wholesale price. We want you to know how well the Split Hickory Special is made—that every fibre of the woodwork is second growth split hickory, thoroughly seasoned and with wear of iron in it. That the material is the *best*, the workmanship the *finest*, and the style and finish all that could be desired by a man who takes pride in driving a beautiful buggy. This is why we allow you to use the buggy 30 days free. Our 1905 Split Hickory Special is in a class by itself.

Here are some of the features that place it there: Long Distance Dust-Proof Axles, Screwed Rim Wheels, Quick Shifting Shafting, Shaft Couplings, Padded Patent Leather Quarter Dash, Rubber Padded Steps, Roller Rub Irons, Full Length Storm Apron, No. 1 Best Quality Leather Quarter Top, All Wool Headlining, 16 ounce Green Broadcloth Cushion and Back, Spring Cushion and Panel Spring Back, Boot, Full Length Velvet Carpet, Arched or Dropped Axles, Choice of any width of Body, Either Three or Four Bow Top, Reinforced Shafts with Heel and Corner Braces. Our Split Hickory Catalogue of Vehicles and Harness has 192 pages and fully explains our liberal terms; also quotes our lowest wholesale prices. Sent free. Write us at once.

THE OHIO CARRIAGE MANUFACTURING CO. (H. C. Phelps, Pres.), Station 282, CINCINNATI, OHIO.

SKINNER'S IMPORTED LIGHT DE DION SIXTEEN-HP. RACING CAR.

Special Correspondence.

Boston, Mass., Oct. 26.—Since its arrival on this side of the Atlantic some weeks ago, much interest has been created in local automobile circles by Kenneth A. Skinner's sporty De Dion-Bouton Paris-Madrid racer. Boston is fairly used to seeing big machines of both domestic and foreign manufacture, but when this long, low car comes snorting along the street like a blooded horse restrained, the crowd stops and looks. To those who know the

to give the machine a fair trying out, his only run of note being from New York to Springfield by the way of Boston, with the other members of the Automobile Club of America. The car has been called by some the "White Streak," and this name fits it as well as any other. The car, which in reality is swung well off the ground, has the appearance of being very long and low and racy. It is painted white with brass trimmings. The hood over the engine adds to the lengthy appearance of the car for it is fully four feet long and finely tapered. Directly behind the hood are two seats set so low that the body of the operator gives little or no resistance to



KENNETH SKINNER'S LIGHT DE DION RACER.

history of the car, its participation in that fatal race of last summer, gives it an added attraction. It is the first real foreign racing machine that Boston has seen and Mr. Skinner has had many callers who wished to examine the car at close range. As yet Mr. Skinner has had no opportunity

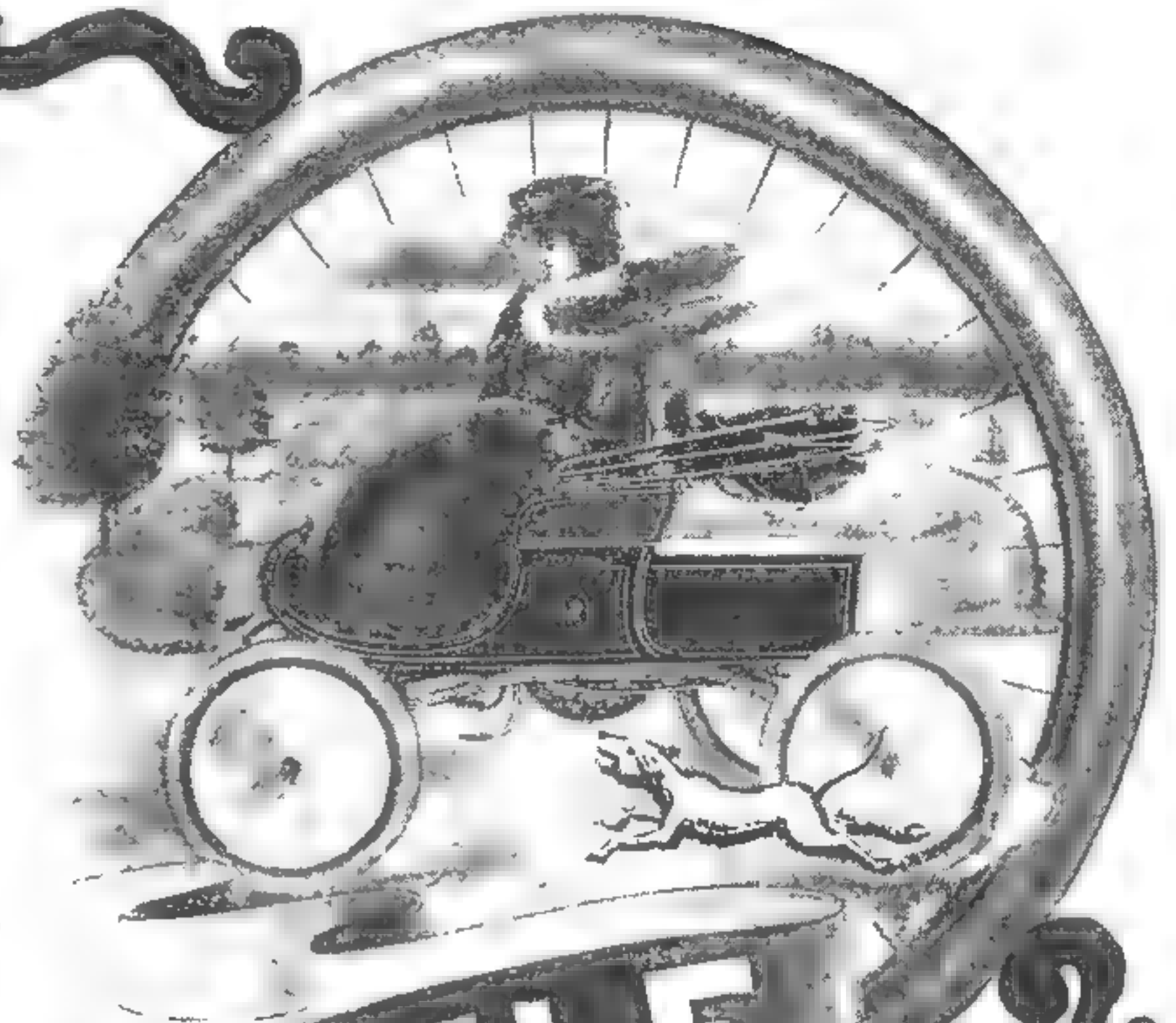
the wind. Back of the seats is a small hood covering the gasoline tanks and containing a receptacle for tools. The extra tire is strapped to the outside of the rear hood. The car weighs 1,600 pounds and the 2-cylinder engine develops 16-horsepower.

The Oldsmobile

Nothing to watch but the road

Used *yesterday*, in use *to-day*, and ready for *tomorrow*. The construction is simple and practical, the working parts are easily understood and readily accessible.

Power is transmitted to the rear axle by a roller chain of 4000 pounds working strength, running direct from the motor shaft. Operated by a single lever from the seat and responds instantly to the will of the operator.



OLDSMOBILE

This handsome and practical machine has demonstrated through every day use by 7,000 drivers its undoubted right to the title of "*The Best Thing on Wheels.*"

Records

The highest awards for a perfect score in the Long Island and Chicago Endurance Runs and the New York-Boston Reliability Run.

Fifteen cups for first places in speed races.

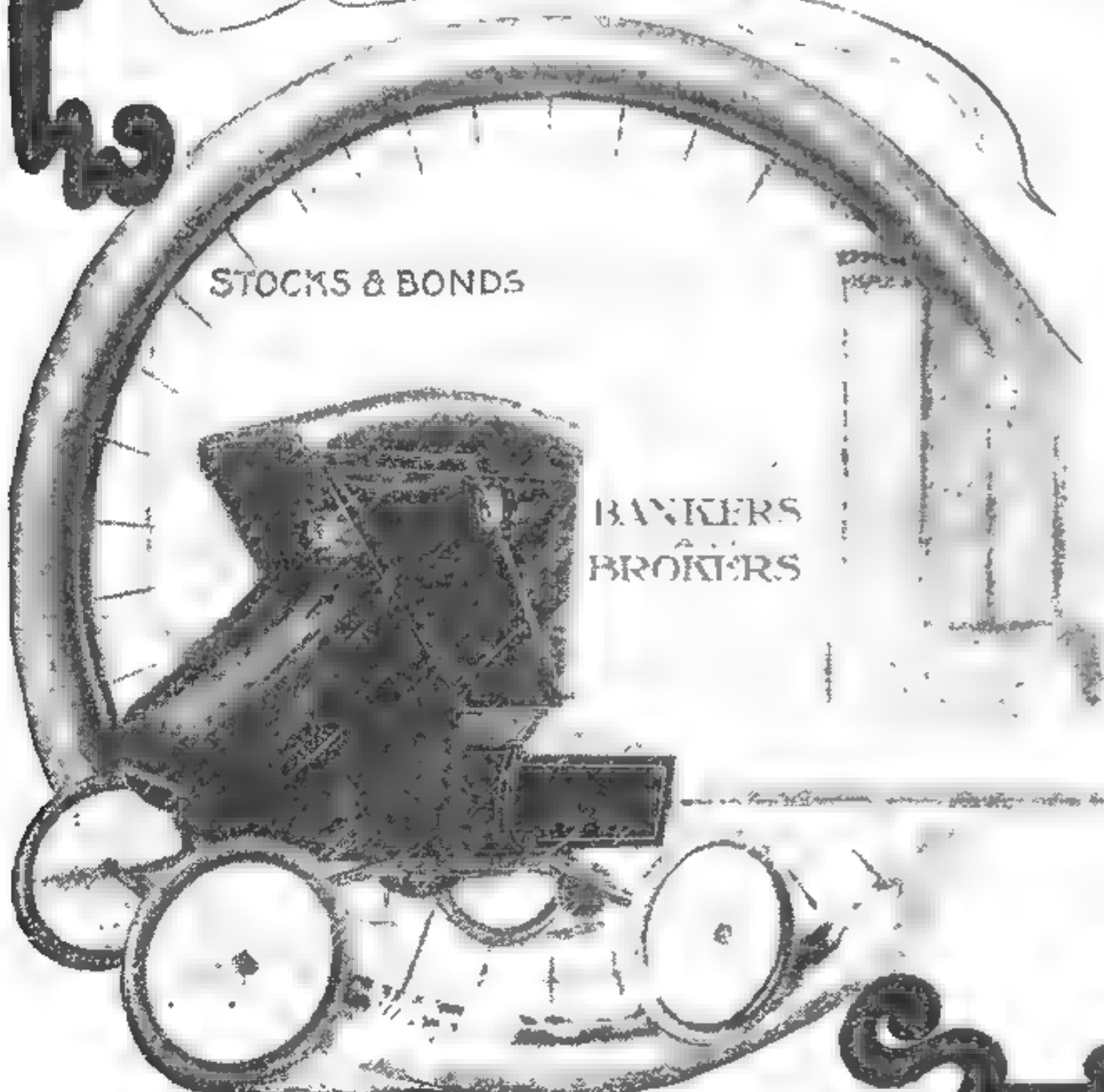
The Oldsmobile is not a racing machine, but the speed records show it can go about as fast as the average man cares to travel.

Price \$650.

Write for illustrated Book to Department M.

Olds Motor Works

Detroit, Mich.



A U T O M O B I L E H I S T O R Y

FIRST American gasoline powered car was built in 1892 by Duryea. The first gasoline car built in Germany was made by Carl Benz. A few earlier cars ran on liquid or city gas. FIRST steam car was built in 1770 by Jos. Cugnot of France.

* * * * *

In 1877 a Rochester N. Y. patent attorney, George B. Selden, applied for a patent on an automobile. The claims were quite broad. It was for a combination gasoline engine, clutch and transmission with a driving mechanism. He built a full sized model car that would not operate. But he did secure royalties for several years from practically every automobile manufacturer in America EXCEPTING Henry Ford. Ford fought the Selden interests for years—and finally WON. You will note in many of the advertisements appearing in this book that the following wording appears, "Licensed Under Selden Patent."

* * * * *

In 1895 the first automobile race ever held in America was a 70 mile event sponsored by the Chicago "Times-Herald". About 75 cars entered, many of them of foreign make. The American Duryea won first place. The only other car to finish was a German Benz.

* * * * *

The first cars with engines under the "bonnet" or hood were built about 1898 in Germany by Diamler. The first car to have sliding gear transmission was built in France about 1898 by Panhard.

In 1900 the first American Automobile Show was held at Madison Square Garden in New York City. Many foreign cars were exhibited and a few motorcycles.

* * * * *

Many early American cars had 60 inch tread. Especially in the South, the 60 inch tread wagons were used. Once my father broke a front axle on an Olds curved dash model. He wired the factory and they sent him a 60 inch tread axle. The car he owned was 56 inch tread.

* * * * *

About 1905 side door entrances were originated by U. S. makers. Prior to that time rear entrance tonneau models were in vogue.

* * * * *

Ford had the water pump in front of the radiator on his early 4-cylinder cars, and a lever that folded down to hold the starting crank in an upright position. In 1909 he introduced the first left hand drive car. All others prior to 1909 were right hand drive—even the earlier Fords.

Early day drivers called the throttle the "speeder", the commutator became the timer, the timer became the distributor, the spark plug was the sparking plug, the vibrating coil was the "buzzer", the radiator was the "cooler" and the mixing valve became the carburetor.

* * * * *

Haynes offered the first top, windshield, headlamps and speedometer as standard equipment. In the early days they were "accessories." A good speedometer cost \$125. Odometers, to tell mileage only, were popular.

* * * * *

In 1911 the first Indianapolis Speedway Race was held. Ray Haroun, in a Marmon "Wasp", was the winner.

* * * * *

Cadillac had the first self starter in 1912. Winton and a few others had a compressed air starter that worked part of the time.

* * * * *

In 1914 Dodge came out first with all steel bodies. Thompson Products offered a one-piece solid-forged (3½% nickel) engine valve.

Vacuum tanks replaced gravity fed fuel systems, and later the fuel pumps eliminated the vacuum tank. The Boyce Moto-Meter was the leading accessory

and an ornament as well, until heat indicators mounted on the cowl of the car appeared.

* * * * *

The first V-8 car engine was introduced by Cadillac in 1915. It had an electric self-starter which Cadillac pioneered. Demountable rims replaced cylinder types about 1915, after having been used since 1908 in France.

* * * * *

The first straight eight engine offered in a production car was built by Duesenburg in 1921. That same year Thompson Products introduced the "non-burning" Silchrome valve. In 1923 Dodge built the first all steel closed cars.

* * * * *

In 1924 balloon tires became standard equipment. The first cars so equipped had front end wobble or "shimmy". Oakland was first to use Duco instead of paint and varnish. Chrysler introduced oil filters and some say "air cleaners", but we had a 1905 Reo with a screen over the air intake and a sock over the screen—perhaps that was the FIRST air cleaner. Chrysler had four wheel brakes, but Captain Rickenbacker offered them first on his "6"—then followed the adoption of four wheel brakes by all makers, excepting ONE hold-out—Studebaker—who ran large advertisements stating that they would never use four-wheel brakes and told of the danger of four-wheel brakes.

* * * * *

Chrysler came along in 1927 with rubber engine mounts and hydraulic shock absorbers were becoming popular. Safety glass was coming in and in 1928 Ford introduced it in windshields—the first ones tarnished and turned yellow in a few months.

* * * * *

Very few remember the Chevrolet "V-8". It was built in 1918 and on the market but a short time. The five passenger touring car sold for \$1385, F. O. B. Flint. It was an overhead valve motor, 3¾ bore by 4 inch stroke. Chevrolet advertised that an 8-cylinder car is "never failing in power and that power is constantly under the control of the driver"—and do not forget that Ford had a "6" in 1906.

* * * * *

To most people Oldsmobile is connected with Lansing, Michigan. Early advertisements, however, show Olds to have been built originally in Detroit.

* * * * *

Many of the big companies of today have produced a "white elephant". By this I do not mean that the car was not good, but that it did not "go over," or for other reasons the name was dropped. Studebaker had "Erskine", Oldsmobile the "Viking", Buick the "Marquette", Cadillac the "LaSalle", Nash has had a series of connections—Rambler came first, name changed to Jeffrey, then became Nash after Charles Nash secured control, then the Nash Company produced the "Ajax" and later the "Lafayette", Hudson had "Terraplane" and "Essex", Chandler had "Cleveland". There were others.

* * * * *

The first Plymouth was not built by Chrysler! In 1908 the Plymouth Commercial Truck Co. of Plymouth, Ohio, built trucks and commercial cars called "Plymouth". They were, of all things, friction drive!

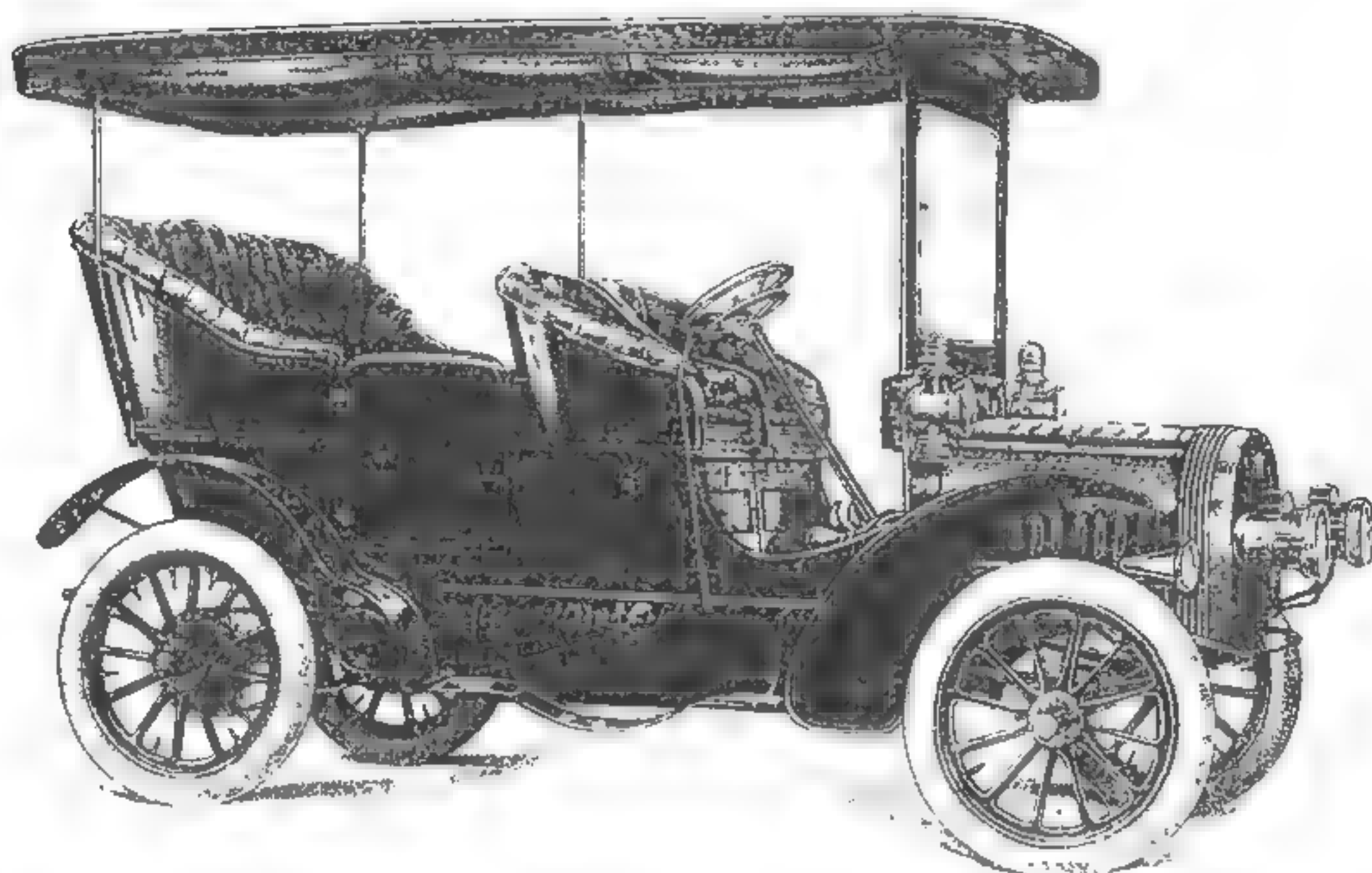
* * * * *

The first Lincoln car was not built by Ford or Leland but by the Lincoln Motor Car Works in Chicago. As early as 1911 they built light delivery cars priced from \$575 to \$785.

* * * * *

According to Wellington Everett Miller, America's foremost authority of early automobile history more than 2200 automobiles of various makes have been manufactured since before the turn of the century. More than one hundred different makes of steam cars were built during that time. These figures do not include foreign makes but only those manufactured in the U. S. A.

Rambler



IN SURREY, TYPE TWO, speed has been subordinated to *comfort* and *reliability*. All of the mechanism is so simple that the boy of the family can operate it. Ample power and clearance for rough roads and hills, powerful brakes, roomy, elegantly upholstered seats, large springs, wheels and tires, storage space under seats, canopy top, water-proof side curtains and plate-glass swinging front \$2000, complete with lamps, tools, etc. Other models \$750, \$850, \$1350, \$3000

THOMAS B. JEFFERY & COMPANY

Main Office and Factory: Kenosha, Wisconsin
Branches, Boston, Chicago, Philadelphia
New York Agency, 134 West Thirty-eighth Street
Representatives in all other leading cities.

*There is no
Prohibitive Grade
for the CADILLAC*

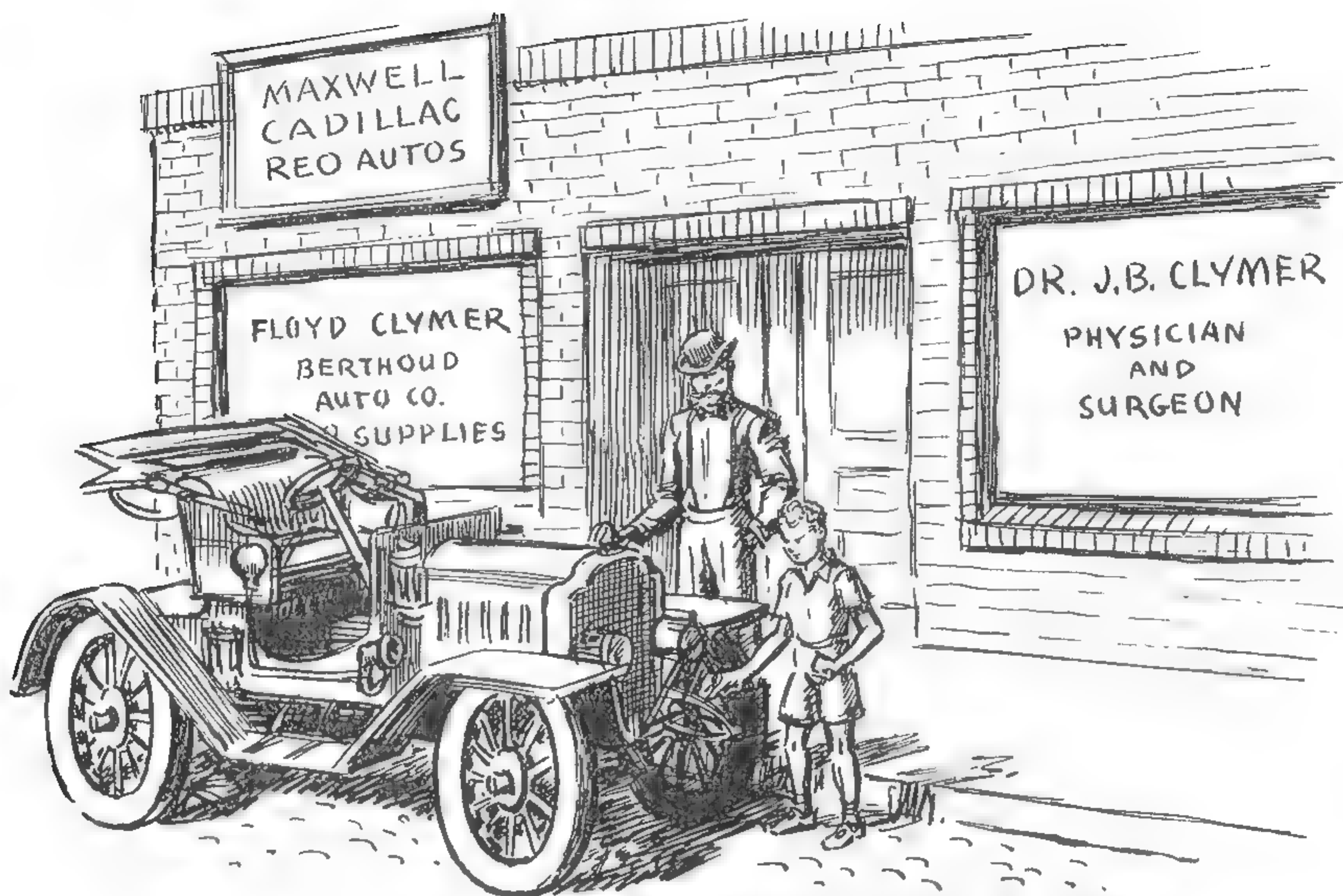


The Cadillac Automobile will go up any grade of any well-traveled road, without balk—most-time without change of gear. The Cadillac does more than overcome grades—it is a machine for all roads and all seasons. Mr. I. L. Atwood, an auto novice, drove a Cadillac containing three passengers from New York to Waterbury, Conn., 93 miles, at an average speed of 13 miles an hour without a stop. This is a typical

performance—
no accident, no repairs
—but perfect satisfaction. No
gaskets to burn or blow out; new sparking
device endorsed by all gas-engine experts; same
copper water jacket as used in latest French machines;
speed range 4 to 30 miles an hour; only two places to oil—
against 10 or more in others; interchangeable bronze bearings; mechanic-
ally operated valves. Model A, 1904, with the Detachable Tonneau seating four
facing forward, \$850. Without tonneau, the smartest of Runabouts, \$750. Our
free illustrated booklet G gives address of agency nearest you where the
Cadillac may be seen and tried.

CADILLAC AUTOMOBILE CO., Detroit, Mich.

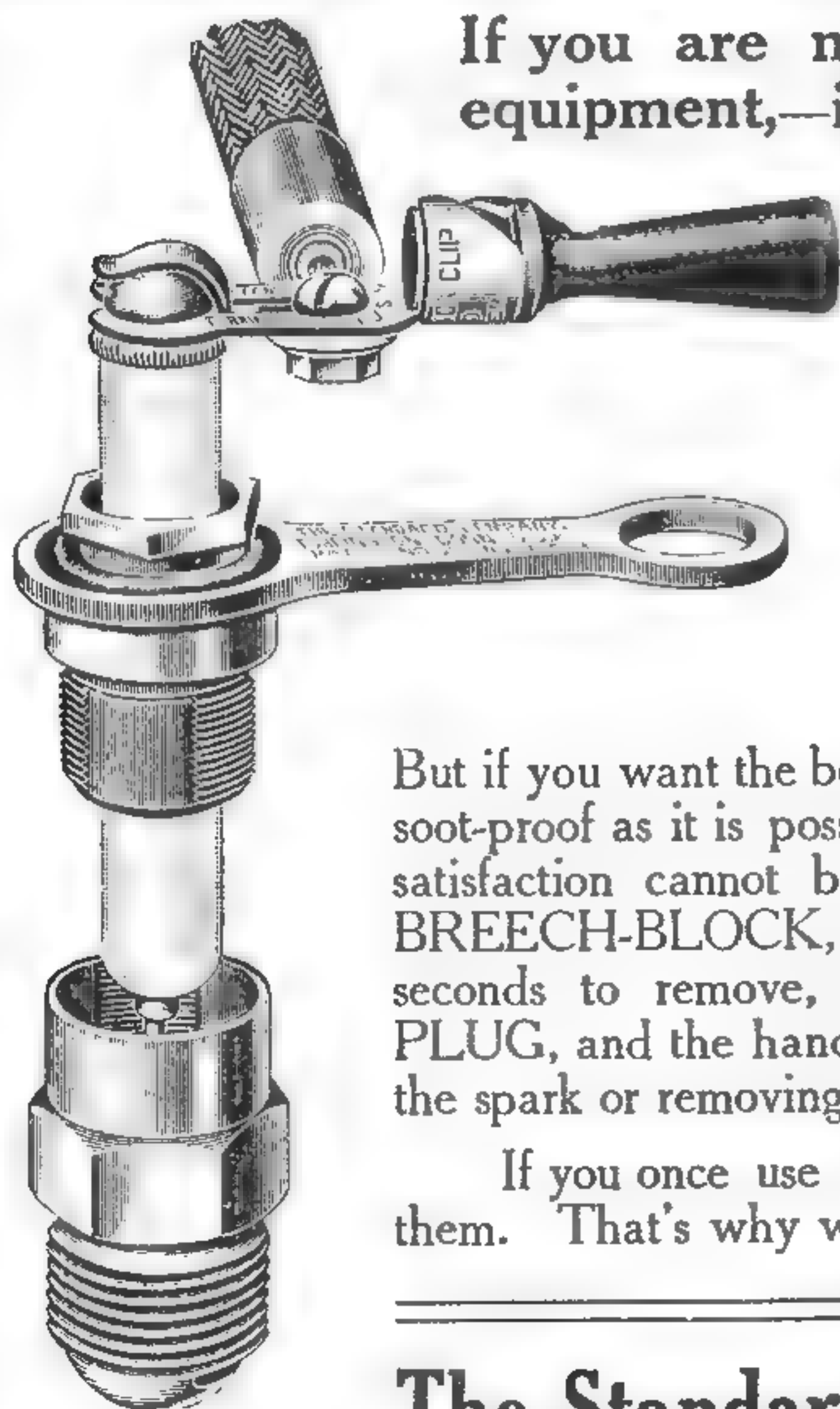
Member Association of Licensed Automobile Manufacturers.



YOUNG AUTO AGENT DEMONSTRATES MAXWELL

Our cartoonist stopped off at Berthoud while touring northern Colorado last week. He gives his impression of Floyd Clymer the 11-year-old Maxwell dealer "talking up" the Maxwell to a prospect. He operates Berthoud Auto Co. and carries supplies in stock.

Motor Field Magazine (Denver) 1907.



$\frac{1}{2}$ " STANDARD

If you are not particular about your plug equipment,—if any old spark plug will do,—then we cannot hope to interest you in

Breech-Block Plugs

But if you want the best spark plug procurable,—one that is as near soot-proof as it is possible to make plugs; one that for all-round satisfaction cannot be surpassed. We have it for you in the BREECH-BLOCK, with terminal clip handle. It takes only four seconds to remove, clean and replace the BREECH-BLOCK PLUG, and the handle will be found most convenient when testing the spark or removing clip from plug.

If you once use a BREECH-BLOCK you will always use them. That's why we want you to send for sample.

The Standard Company, Torrington, Conn.



A Bottle of Whiskey Free!

In order that our whiskey may reach the consumer direct, we will send an individual bottle of our 15 year Old Jno. F. Fitzgerald Rye or Bourbon Whiskey, for 14c. postage, which is to defray expense of packing, etc. If preferred, we will send an individual bottle of Martini, Manhattan, Whiskey, Gin, Vermouth, Brandy or Jap Cocktail in place of the Whiskey.

We wish to show you the difference between the best Whiskey on the market and the cheap, inferior grades now being advertised. **Whiskey Under Eight or Ten Years Old is Not Fit to Drink.** It is in a constant state of fermentation, which continues after it is in the stomach, causing headache, biliousness, etc.

FOUR BOTTLES FOR \$5.00.

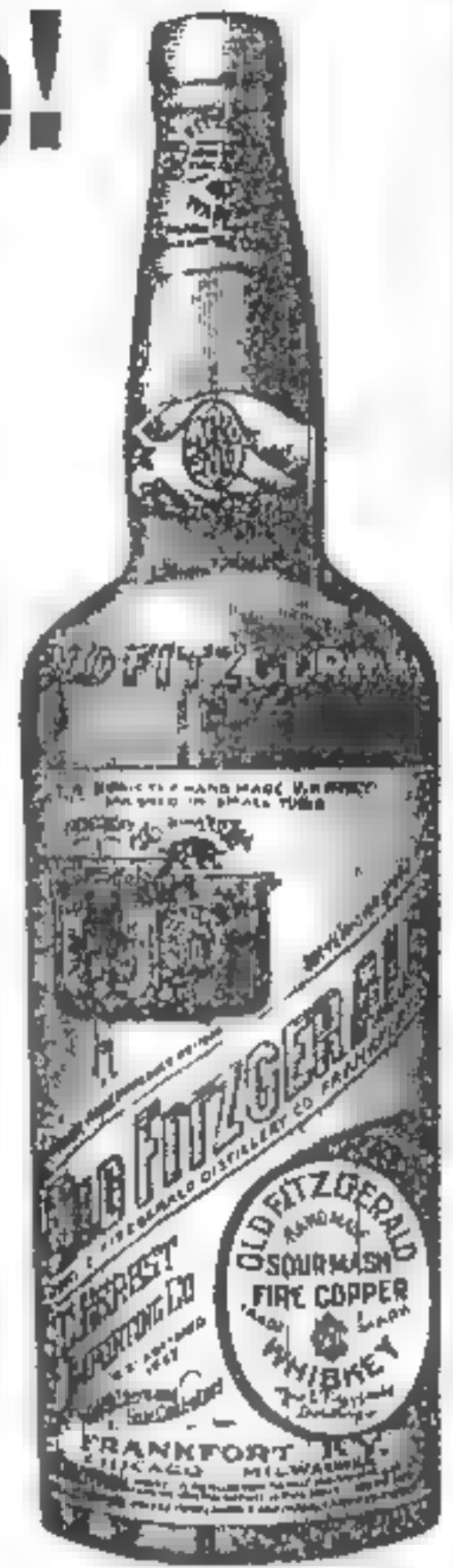
shipped in Plain Case, Carrying Charges Prepaid.

The bottling is done under the supervision of the distiller, and we **Guarantee** that **Our Whiskey is an Old Fashioned Sour Mash Whiskey, Mashed in Small Tubs by Hand,** and we are the only **Distillers** employing the same **Methods** as those used by distillers years ago. It leaves no detrimental effect, and is recommended by physicians.

VALUABLE BOOK OF RECIPES FOR 6 CENTS POSTAGE.

We have published a book called "**THE MIXER**," containing a large number of the most exquisite recipes for mixed drinks, all of which can be made at any sideboard. It also contains our price-list of wines, liquors, etc.

Orders for the extreme South, West and Northwest must call for at least 20 bottles, freight prepaid.



S. C. HERBST IMPORTING CO.

FRANKFORT, KY.

CHICAGO, ILL.

MILWAUKEE, WIS.

Main Office, to which all Business Communications should be addressed.

401 CHESTNUT STREET.

THE Gasmobile

PRICE \$1600.

The Finest Gasoline Touring Carriage Built in America.

AUTOMOBILE COMPANY OF AMERICA,
34 BROADWAY, NEW YORK.

The Overland

Model 16, Special Runabout, \$600

THE FIRST OF OUR TWO CARS FOR 1906

Vertical, two-cylinder, 7-8 Horse Power motor in front, long wheel base. Standard track and a new color—Silk-green.

Easy to drive. Your hands are always on the steering wheel and your eyes on the road. The control is at your fingers' ends.

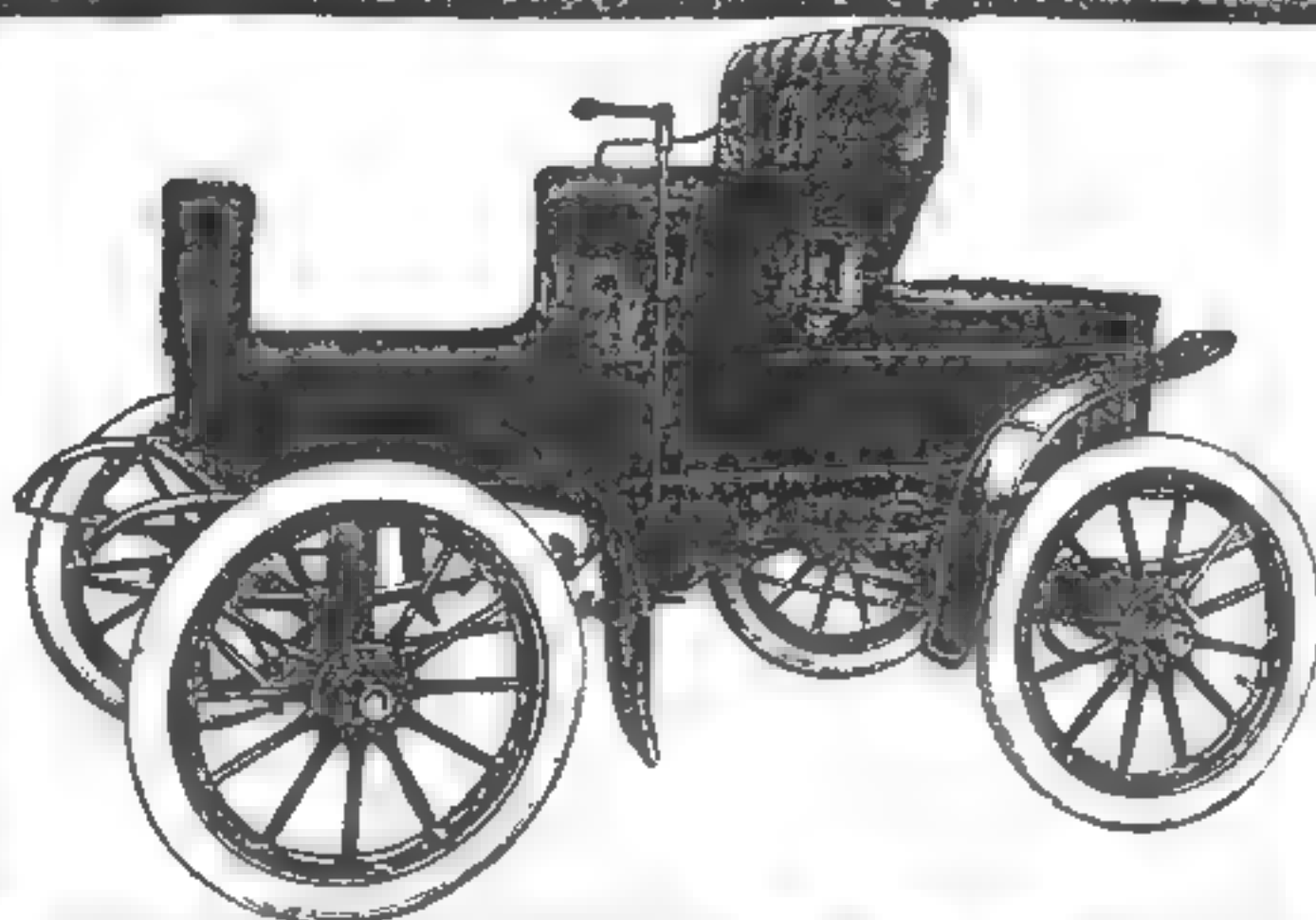
H. B. Jordan, Gulfport, Miss., writes: "I received the car, and sold it the day it came to a man that never rode in one before. . . . I instructed him two hours, and he has not had one minute's trouble since he started it. . . . I want one of your Model 16 Specials. . . . Please wire me what date you can make shipment and I will wire the order. . . ."

Just ask us for a catalog.

STANDARD WHEEL COMPANY
1160 Division Street Auto Department Indianapolis, Ind.

In answering any advertisement on this page it is desirable that you mention MUNSEY'S MAGAZINE.

NOTE: All ads appearing in this Scrapbook are of course void, having appeared years ago. They are reproduced not for the purpose of selling any merchandise. The ads do, however, show the great progress made by both the automotive industry and the advertising firms of this country.

ELECTRIC
RUNABOUT.

STUDEBAKER AUTOMOBILES

"The Automobile with a Reputation Behind It."

WE are now prepared to meet the needs of those who are seeking an automobile for convenient local use—a machine which can safely and easily be handled by any member of the family—or a full-powered tonneau car for wide radius touring.

THE STUDEBAKER ELECTRIC

is equipped with Exide or Edison batteries, and has been thoroughly tested by years of actual use. Made on lines of the Runabout, Victoria Phaeton, Stanhope, Surrey or Delivery and Truck Wagon (first two styles illustrated here). The most convenient vehicle for physicians' use.

THE STUDEBAKER TOURING CAR

A light, but powerful, Gasoline Tonneau Car, embodying the latest improvements in construction and sold at a fair price. Built by a firm whose reputation is a guarantee of thorough workmanship. Write for catalogue to

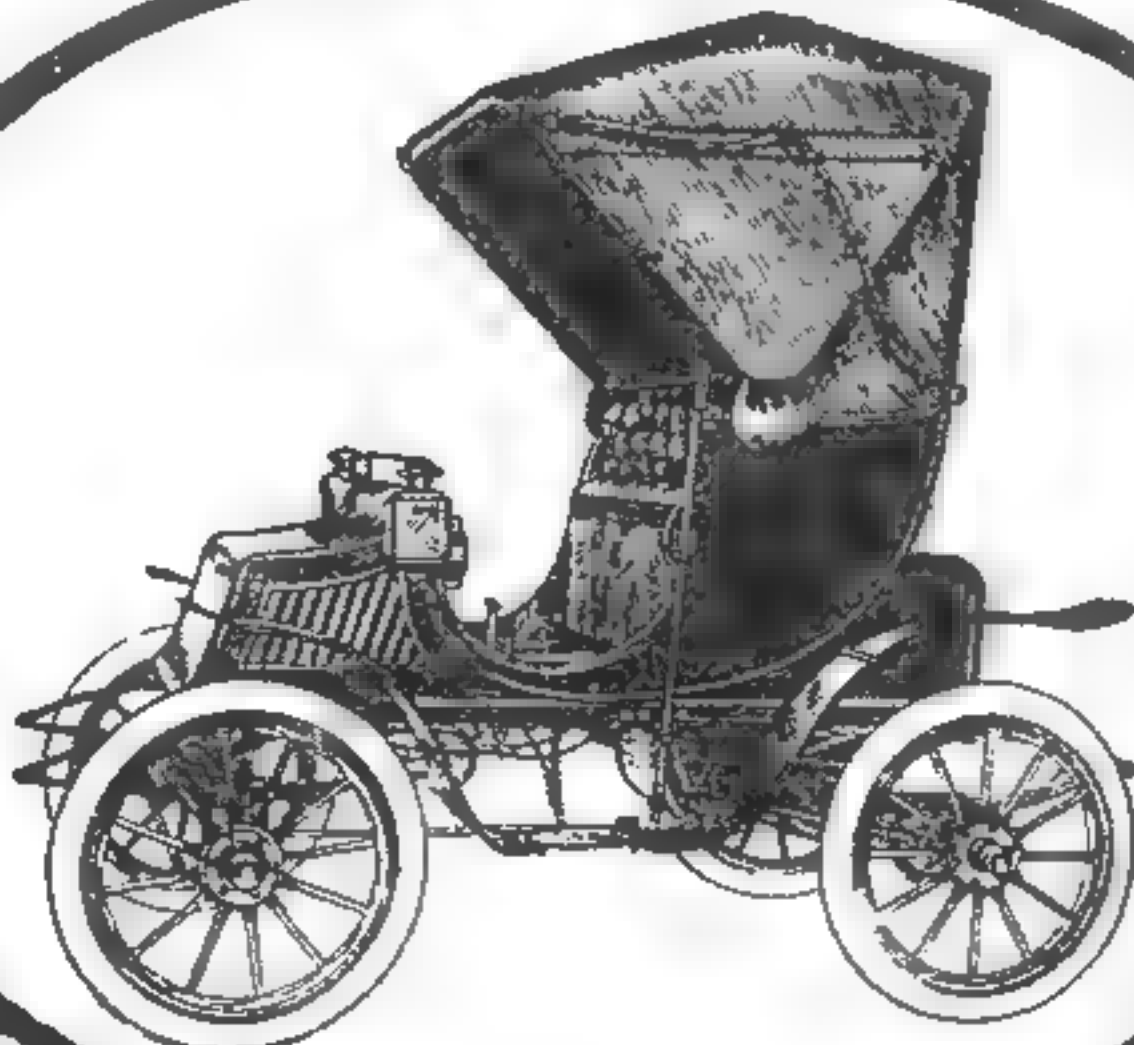
STUDEBAKER BROS. MFG. CO., Automobile Department,
SOUTH BEND, IND.

NEW YORK CITY: Broadway, corner 48th Street.
DENVER, COL.: Corner 15th and Blake Streets.
CHICAGO, ILL.: 378-388 Wabash Avenue.
SALT LAKE CITY, UTAH: 157-159 State Street.

KANSAS CITY, MO.: 810-814 Walnut Street.
PORTLAND, ORE.: 330-334 East Morrison Street.
SAN FRANCISCO, CAL.: Cor. Market and 10th Sts.
DALLAS, TEX.: 317-319 Elm Street.

Branch Houses and Agencies in Other Principal Cities.

ELECTRIC VICTORIA
PHAETON.





It is not a usual thing to find

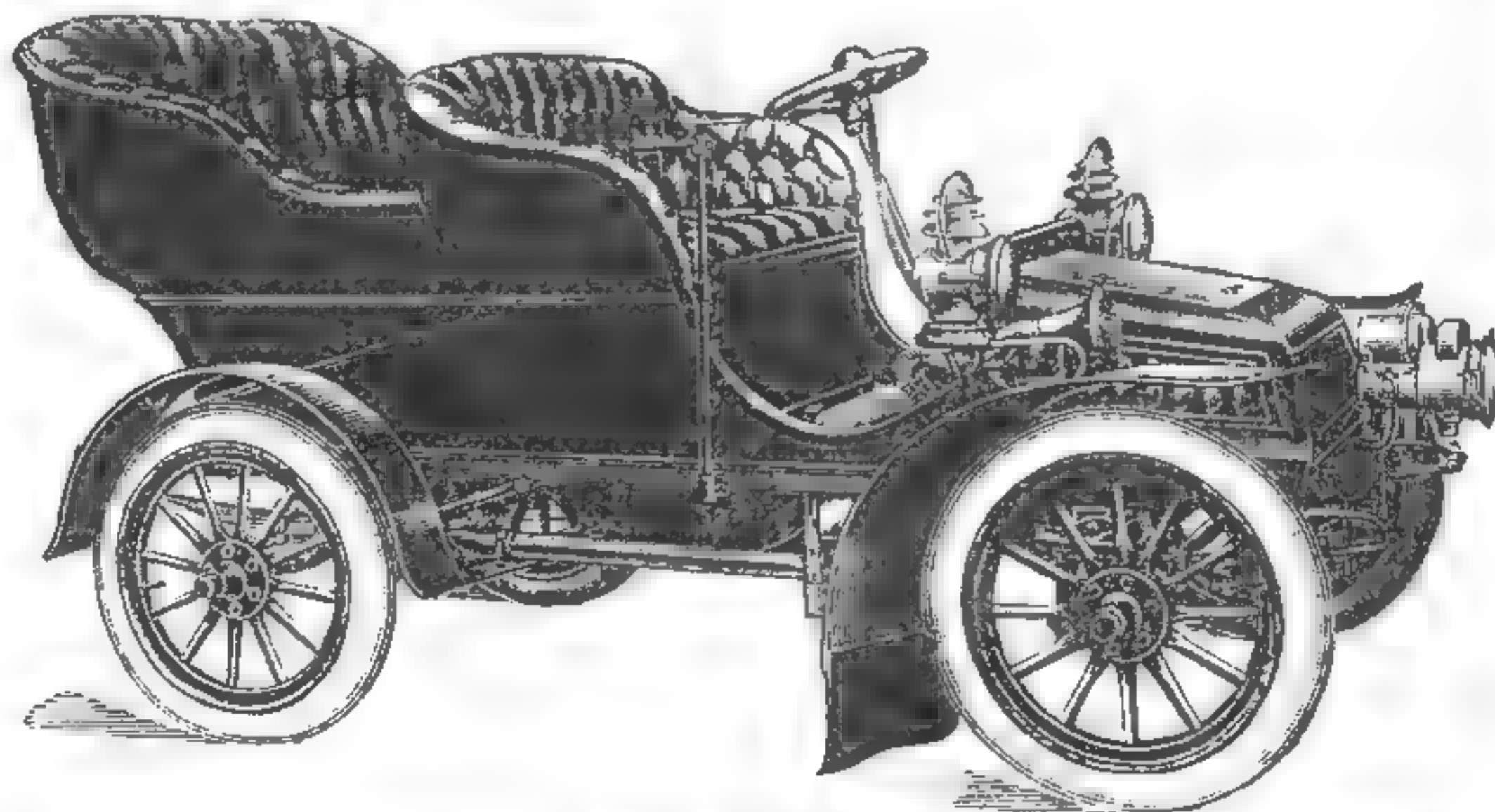
A REAL BARGAIN

by which we mean unusual value for the money. There is no light touring car on the market today which can compete in value and quality with

Pope-Hartford, Model B, at \$750

AS LONG AS THEY LAST

An exceptional hill-climber, and in every way a thoroughly reliable and powerful touring car, which will give you constant, daily service. A demonstration will prove our claims.



BE SURE THE NAME "POPE" IS ON YOUR AUTOMOBILE

POPE MFG. CO. : Hartford, Conn.

NOTICE

To Dealers, Importers, Agents and Users of Our

Gasoline Automobiles

WE will protect you against any prosecution for alleged infringements of patents. Regarding alleged infringement of the Selden patent we beg to quote the well-known Patent Attorneys, Messrs. Parker and Burton: "The Selden patent is not a broad one, and if it was it is anticipated. It does not cover a practicable machine, no practicable machine can be made from it and never was so far as we can ascertain. It relates to that form of carriage called a FORE CARRIAGE. None of that type has ever been in use, all have been failures. No court in the United States has ever decided in favor of the patent on the merits of the case, all it has ever done was to record a prior agreement between parties."

We are pioneers of the GASOLINE AUTOMOBILE. Our Mr. Ford made the first Gasoline Automobile in Detroit and the third in the United States. His machine made in 1893 (two years previous to the granting of the Selden patent, Nov. 5, 1895) is still in use. Our Mr. Ford also built the famous "999" Gasoline Automobile, which was driven by Barney Oldfield in New York on July 25th, 1903, a mile in 55 4-5 seconds on a circular track, which is the world's record.

Mr. Ford, driving his own machine, beat Mr. Winton at Grosse Pointe track in 1901. We have always been winners

Write for Catalogue.

FORD MOTOR COMPANY

688-692 Mack Avenue, . . . DETROIT, MICH.

NOTICE

To Manufacturers, Dealers, Importers, Agents and Users of **Gasoline Automobiles**

United States Letters Patent No. 549,160, granted to George B. Selden, November 5th, 1895, controls broadly all gasoline automobiles which are accepted as commercially practical. Licenses under this patent have been secured from the owners by the following named manufacturers and importers

Electric Vehicle Co.
The Winton Motor Carriage Co.
Packard Motor Car Co.
Olds Motor Works.
Knox Automobile Co.
The Haynes-Apperson Co.
The Autocar Co.
The George N. Pierce Co.
Apperson Bros. Automobile Co.
Searchmont Automobile Co.
Locomobile Company of America.
The Peerless Motor Car Co.
U. S. Long Distance Auto. Co.
Waltham Manufacturing Co.
Buffalo Gasolene Motor Co.

Pope Motor Car Co.
The J. Stevens Arms and Tool Co.
H. H. Franklin Mfg. Co.
Charron, Girardot & Voigt
Company of America.
(Smith & Mabley)
The Commercial Motor Co.
Berg Automobile Co.
Cadillac Automobile Co.
Northern Manufacturing Co.
Pope-Robinson Co.
The Kirk Manufacturing Co.
Elmore Mfg. Co.
E. R. Thomas Motor Co.
The F. B. Stearns Company.

These manufacturers are
pioneers in this industry, and have commercialized the gasoline vehicle by many years of development, and at a great cost. They are the owners of upwards of four hundred United States Patents, covering many of the most important improvements and details of manufacture. Both the basic Selden patent and all other patents owned as aforesaid will be enforced against all infringers

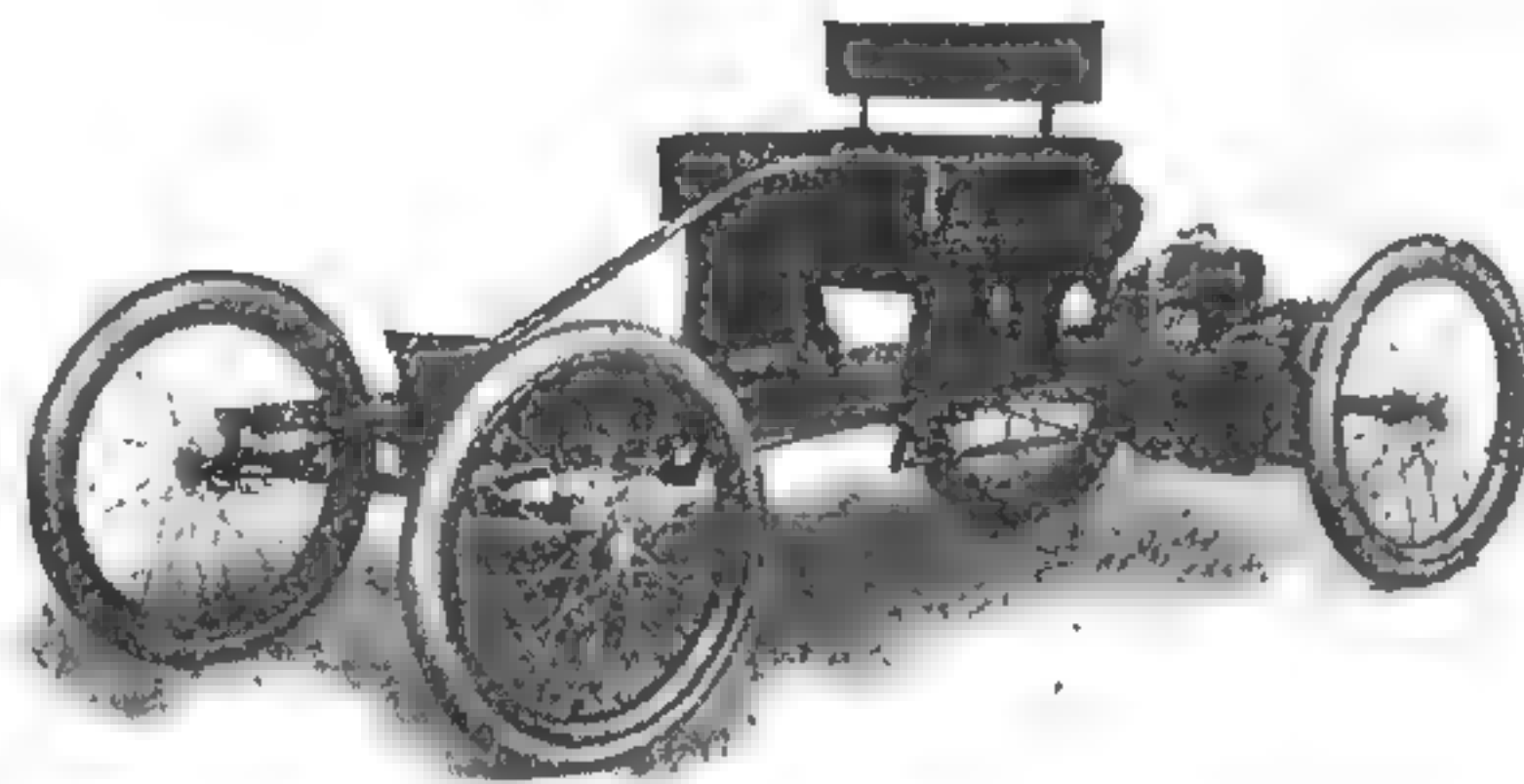
No other manufacturers or importers are authorized to make or sell gasoline automobiles, and any person making, selling or using such machines made or sold by any unlicensed manufacturers or importers will be liable to prosecution for infringement.

Association of Licensed Automobile Manufacturers

No. 7 EAST 42nd STREET, NEW YORK

ORIENT AUTOMOBILES.

MODELS OF 1903.

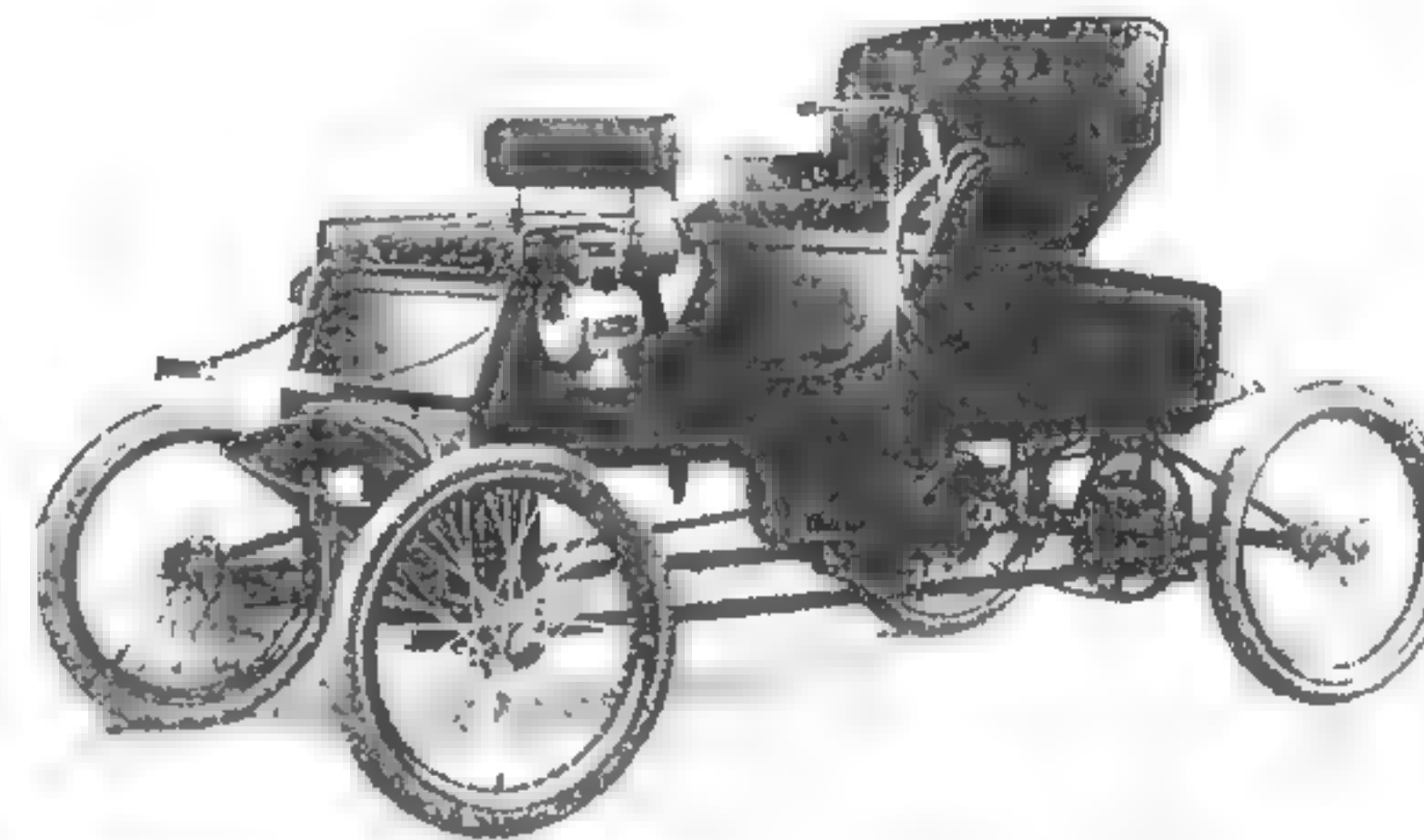


ORIENT BUCKBOARD.

4 H. P. SPEED THIRTY MILES PER HOUR.
WEIGHT ONLY 350 POUNDS.

Price \$500.

The lightest and simplest automobile in the world.



ORIENT MOTOR CAR.

8 H. P. SPEED THIRTY MILES PER HOUR.
WEIGHT, 1,140 POUNDS.

Price \$950.

Powerful, Practical and Durable. Easy to operate.

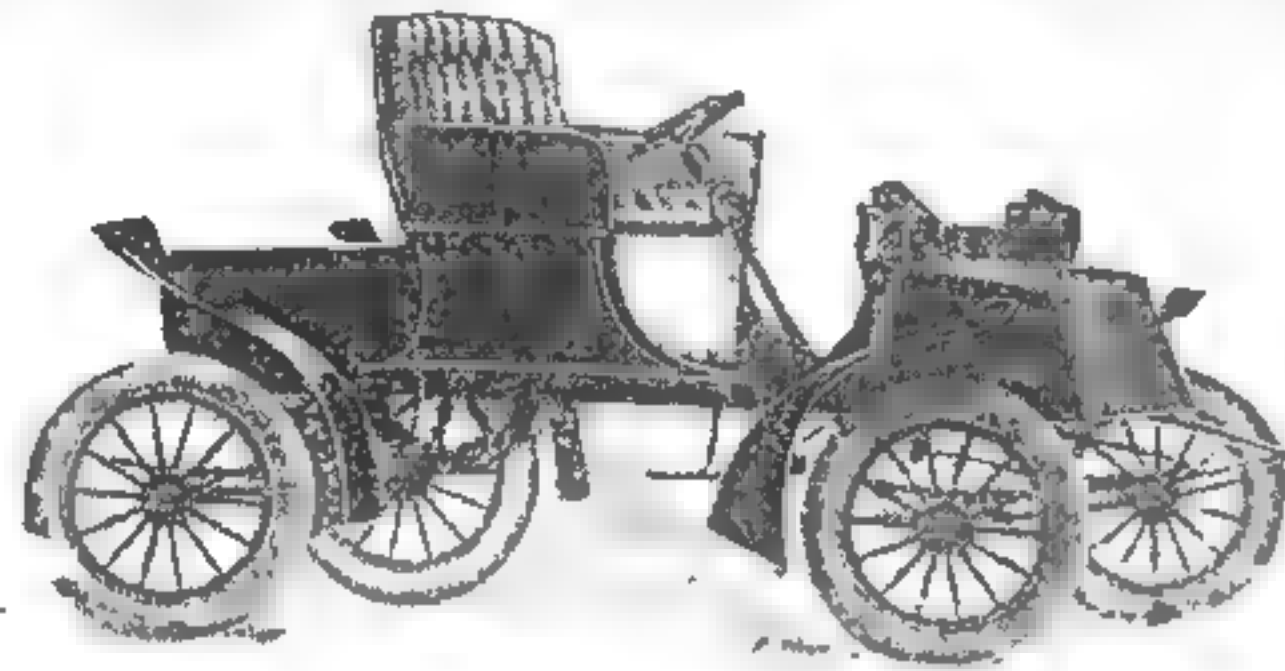
NOW IS THE TIME TO SECURE THE AGENCY.

WRITE FOR CATALOGUE.

Waltham Mfg. Co., Waltham, Mass.

Clarkmobile Touring Car

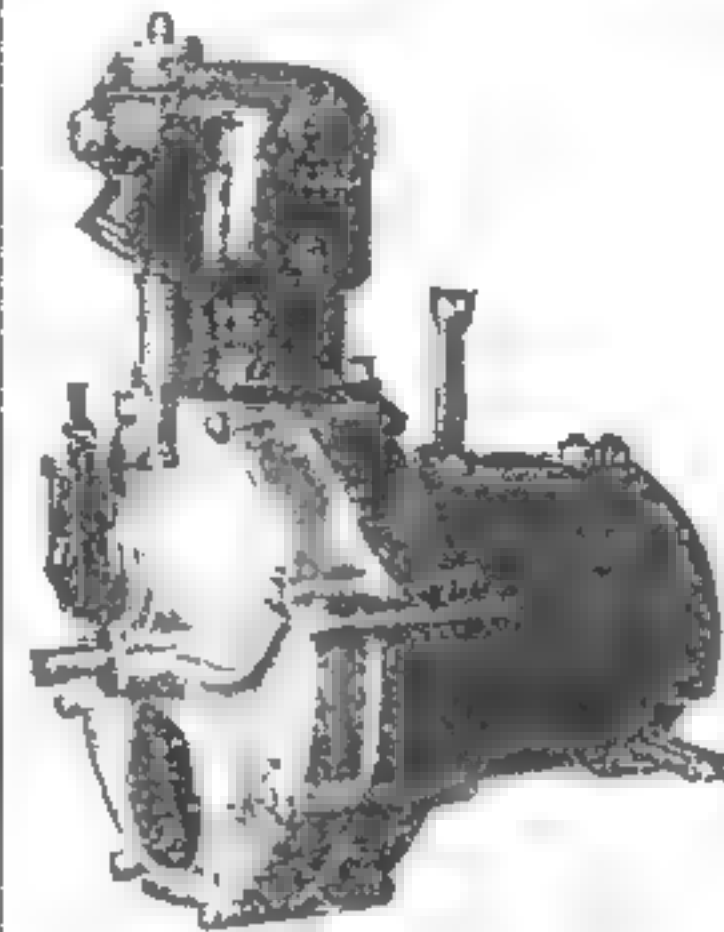
Easiest Rider built. 7 Horse Power, \$750 complete



Our car has been thoroughly tested for two years before being placed on the market. Fully guaranteed. We are placing agencies fast. Write at once. Send for catalogue.

THE CLARKMOBILE CO., Lansing, Mich.

The "EVINRUDE MOTORS"



are High-class, Up-to-date in Design, Workmanship and Finish, and are built for service

WITH OR WITHOUT

3-Speed Transmission Combined

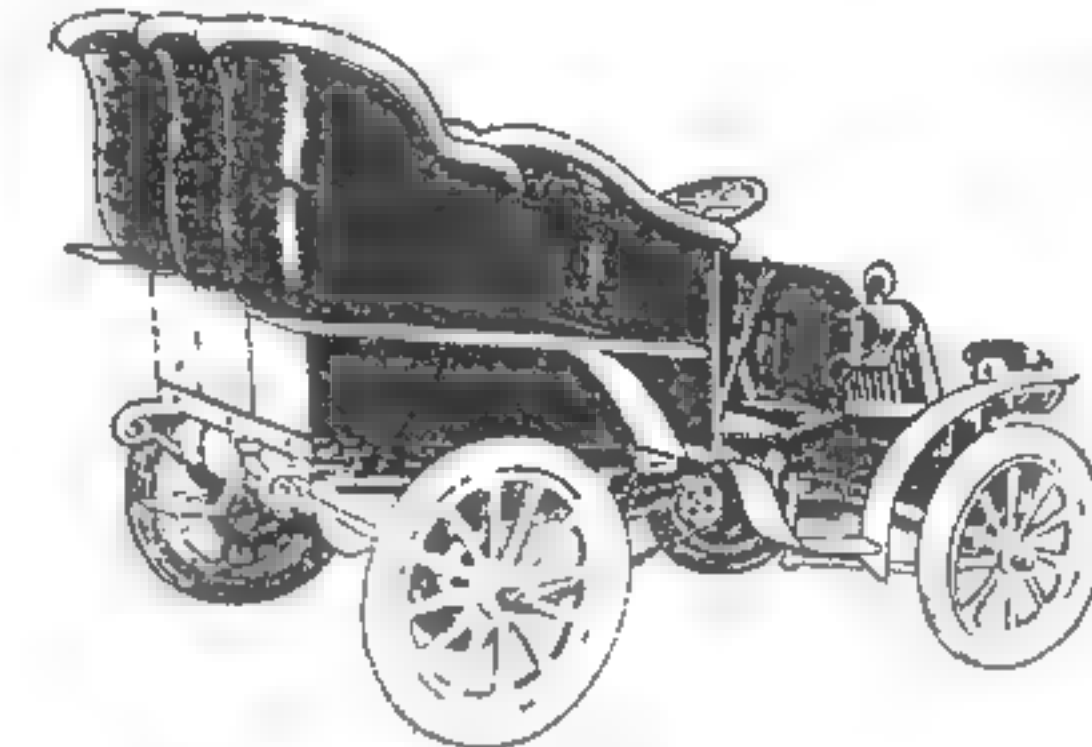
7 H. P. Single, 14 H. P. Double Cylinder.

Write for Catalog "F."

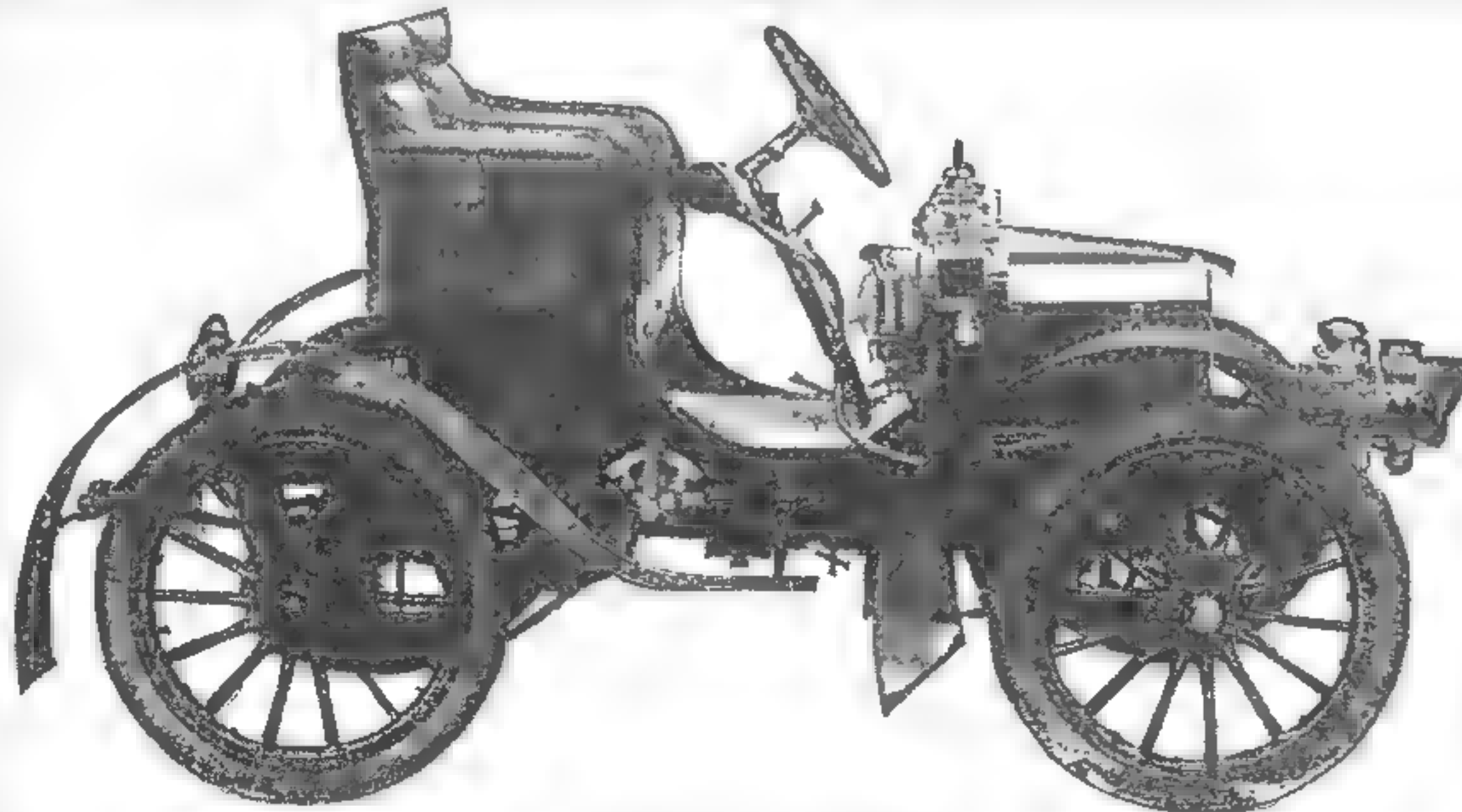
MOTOR CAR POWER EQUIPMENT CO.

255 Lake St.
MILWAUKEE - WIS.

Wanamaker Automobiles



THE NEW SEARCHMONT
SALESROOM AND GARAGE
140 East 57th Street, NEW YORK CITY
JOHN WANAMAKER



Price, \$1,250

The Appearance and All Desirable Features
of a High-priced Touring Car

JONES-CORBIN GASOLINE CAR

DESCRIPTION: 8 h. p. De Dion; 3 speeds and reverse; weight, 675 lbs.; cone clutch; double chain drive; automatic oiling devices, and complete Touring equipment on every car.

DESIGNED and BUILT for CITY and COUNTRY USE

Send for 1903 Catalogue

JONES-CORBIN CO. 304-6 N. Broad St.
PHILADELPHIA, PA.

Agencies In All Leading Cities

SELDEN PATENT WAR BEGINS—SUITS AGAINST FORD AND DUERR.

The serving of papers in a suit in the United States Circuit Court for the southern district of New York by the Electric Vehicle Company, which controls the patent, and George B. Selden, the patentee, against the Ford Motor Company of Detroit and C. A. Duerr & Company, its agents in New York, marks the opening of the Selden patent war. The members of the A. L. A. M. are associated with the Electric Vehicle Company as licensees under an agreement to recognize and defend the patent. It was to be expected that if suit was brought the Ford and Duerr companies would be the first to be called to court, since the former has advertised that it will protect all agents and users of its cars and openly defied the A. L. A. M. The outcome of this suit will be watched for with keen interest by all in the American automobile industry.

The directors of the Ford Motor Company held their first annual meeting in Detroit on October 15 and, after three and one-half months of corporate existence were able to declare a substantial dividend. The officers and directors as re-elected are: President, John S. Gray; vice-president, Henry Ford; secretary, James J. Couzens; directors, John S. Gray, Henry Ford, A. Y. Malcomson, J. Anderson and, J. Dodge.

Progress of the Selden Patent Infringement Suit.

The testimony of Edward M. Bentley, a professional patent expert, has formed the principal prima facie evidence submitted so far in the Selden action, hearing in which was begun before Special United States Commissioner Shields, on April 16. Mr. Bentley's testimony, as well as that of either witnesses on behalf of the complainant, with occasional interruptions, will probably be concluded this week, and the evidence of the defendants will then be offered. Samuel Betts, of Betts, Sheffield & Betts, representing the Association of Licensed Automobile Manufacturers, the complainants, was not inclined to discuss the character of the evidence submitted, but stated that satisfactory progress was being made in the action. Judge Parker, of Detroit, attorney for the defendants, declared that he was satisfied that the evidence so far had not weakened the confidence of the defendants in ultimately defeating the Selden patent. While the complaints against the Ford Motor Company, John Wanamaker and the O. J. Gude Company constitute three distinct suits, the interests of all are so identical that the testimony in one case can be applied with equal force to the others.

THE HORSELESS AGE

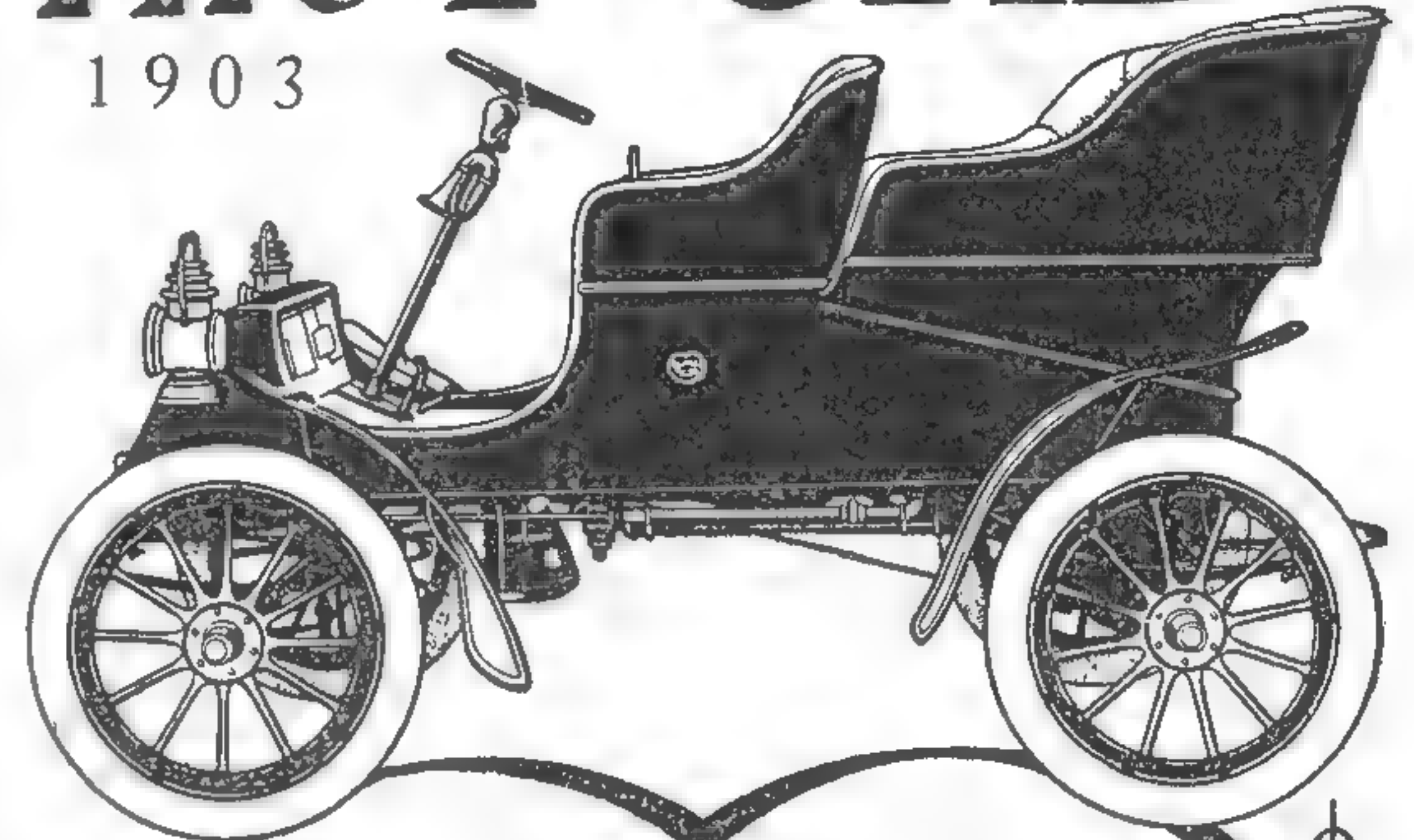
May 11, 1904

THE FIRST MODEL 'A'

28

The FORD

1903



Our claim for the superiority of the FORD double opposed motor over the single cylinder is substantiated by the fact that without an exception all the \$2,000 to \$5,000 cars have two or more cylinders. The Ford gives greater satisfaction and equals in speed, reliability and comfort any car sold at less than \$2,000.

PRICE WITH TONNEAU, \$900.

We agree to assume all responsibility in any action the trust may take regarding the alleged infringement of the Selden Patent to prevent you from buying the Ford—"The Car of Satisfaction."

Write for Illustrated Catalogue and name of our nearest agent.

FORD MOTOR CO., Detroit, Mich.

HENRY FORD IN HIS RACING MACHINE DEFEATS COMPETITOR



AT FULL SPEED—A TRIAL BRUSH BETWEEN MESSRS. FORD (ON THE LEFT OF THE PICTURE) AND HARKNESS (ON THE RIGHT).

From a photograph by Hayes, Detroit.

1904

Mitchell

Light Car.

AIR COOLED, 9 H-P, - \$750
WATER COOLED, 9 H-P, \$750

Has the Style, Design, Power and Speed of the Larger and More Expensive Cars.

VERTICAL, DOUBLE CYLINDER ENGINE.

Slide gear transmission, with the four speeds on one lever.



Will Make 30 Miles an Hour.

Automatic lubrication, irreversible steering device, and more other good points than any other car costing twice the price.

"The Car You Ought to Have at the Price You Ought to Pay"

Send for particulars,
MITCHELL MOTOR CAR CO., 206 Hamilton Ave., RACINE, WIS.
Agencies in principal cities.

Premier


The Quality Car



THE AIR-COOLED HAS NO SEASON.

Zero weather or the hottest days do not affect PREMIERS. 3 YEARS practical service BY USERS have demonstrated that the PREMIER is built on correct, scientific and practical lines. If you are searching for the car that will meet your requirements in all ways, investigate before placing your order. Write today for illustrated descriptive catalogue of the Premier. PROMPT DELIVERIES.

PREMIER MOTOR MFG. CO.
207 Shelby Street INDIANAPOLIS, IND.



ALL EYES ON THE ELMORE

All we've got to say to you is this:—Don't spend \$2500 for a four-cylinder, four-cycle automobile till you've seen the 16 H. P., double-cylinder, 2-cycle Elmore at \$1250. Don't do it, because there are regrets ahead of you if you do. And this is why



The ELMORE at \$1250

produces precisely the same power with its double-cylinder, two-cycle engine as a 4-cylinder, 4-cycle car of the same size and speed—with 75 per cent less parts. Using the throttle and without manipulating any clutches it can be immediately controlled from two to thirty miles an hour. Uphill or straight away, on any road, it can be handled on the high-speed more effectively than any car in America. The two-cycle engine produces TWO impulses with every revolution of the fly-wheel, furnishing a continuous application of power absolutely without waste.

We say again—before you consider a car at \$2500 or any other price you owe it to yourself to read all you can about the Elmore and see it in operation.

Send for the 1905 catalogue, "The Cruise of the Pathfinder," describing its celebrated runs from New York to St. Louis and return, and the interesting book describing the principle of the two-cycle engine.

10 x 12 mounted photographs of the \$1250.00 side entrance Elmore, 10c. in stamps.

THE ELMORE MFG. CO., 504 Amanda St., Clyde, Ohio
Member of the Association of Licensed Automobile Mfrs.

THE BEAU BRUMMEL OF THE ROAD



2 CYLINDER 14 H.P. The Yale \$1000.00

Try to picture to yourself the prettiest Touraround that ever dashed down a country road—a flash of gold and blue, whizzing by with no more noise than a mere musical whirling of wheels. Then try to conceive a car so filled with power that it is like a living thing; and so instantaneously responsive that it can be controlled by a touch of the thumb and index finger. When you've formed this mental impression—you've just begun to get an unexaggerated notion of the thousand dollar

Yale for 1905!

Side Entrance \$1100.

The new double-cylinder Yale weighs only 1400 pounds—with a full ounce of continuous power for every ounce of weight, and some to spare.

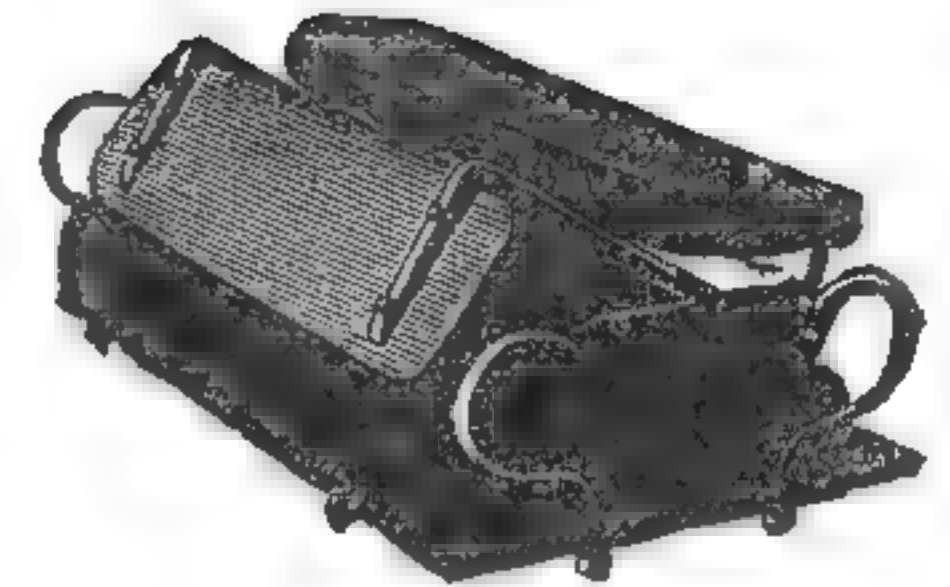
You mustn't even think of finally considering any other car at anywhere near the price before you've read, heard and seen more of "the Beau Brummel of the Road"—the thousand dollar Yale for 1905. For the prince of 4-cylinder Touring Cars write us about the superb new 24 H. P. Yale—a triumph of mechanical perfection and completeness.

New catalogue ready to mail January 1st. Write for it.

THE KIRK MFG. CO., 958 Oakwood Ave., Toledo, Ohio
Member of the Association of Licensed Automobile Manufacturers.



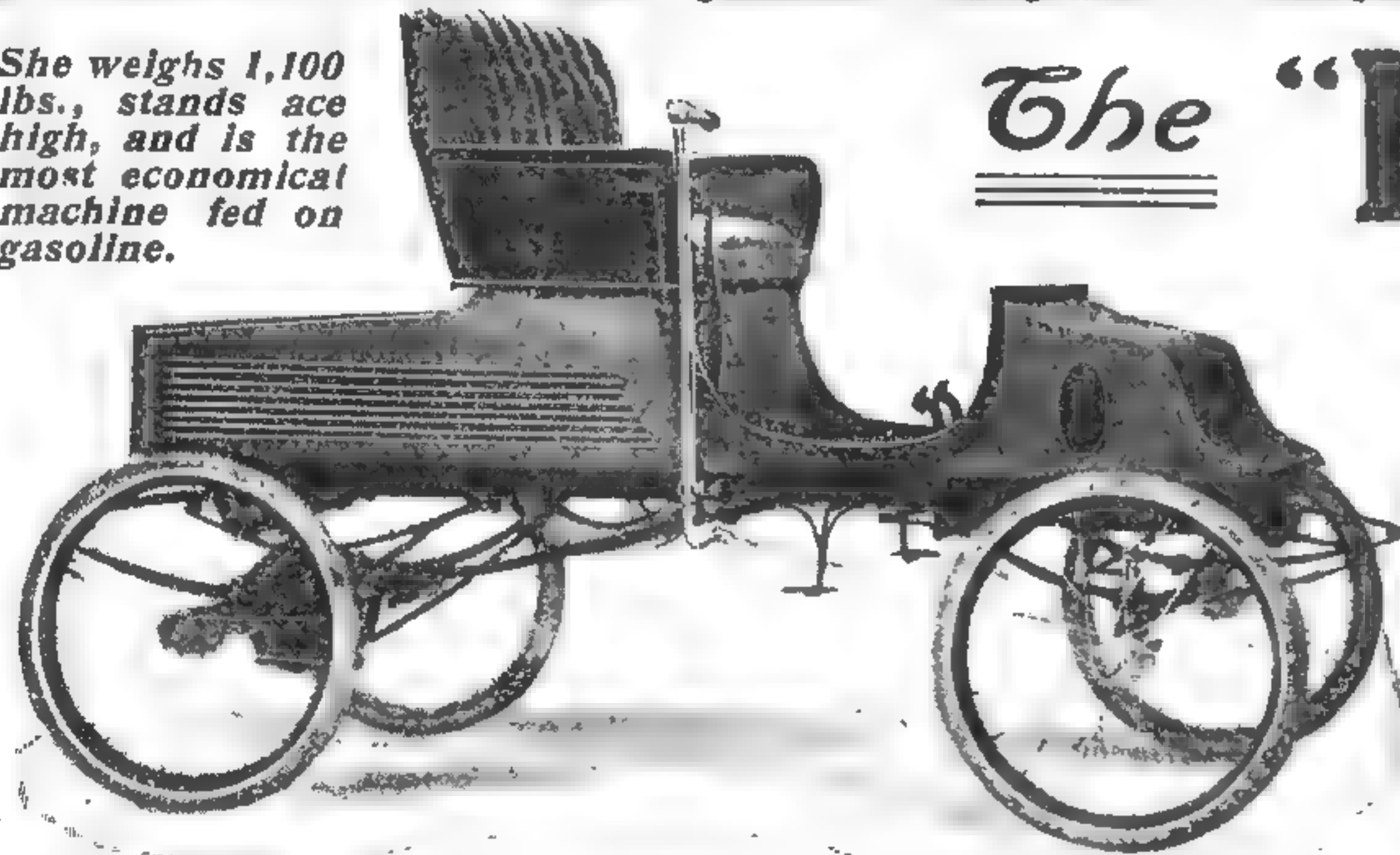
The Swan Patent Spring Edge Dos-a-dos Seat
Will soon be on every runabout auto you meet;
With its lock-joint foot rest, which can be folded so neat,
At prices from ten to twenty dollars cannot be beat.
It is the best that ever was made,
With a liberal discount to the trade.



FLINT UPHOLSTERING CO., FLINT, MICH.

Our first Olds had one of these seats. The passengers got a rear end view of everything and most of the dust. The seat had to be removed to fill the water tank, clean a spark plug or for most motor adjustments.

She weighs 1,100 lbs., stands ace high, and is the most economical machine fed on gasoline.



The "ROADSTER"

1903 Model—Gasoline—\$950.

8 FULL HORSE POWER at your command and only one lever to get it

EVERY PART THE BEST. EVERY PART ACCESSIBLE. MUFFLER THAT MUFFLES. ALL OF HOOD FOR STORAGE. ARTILLERY WOOD WHEELS. 3 INCH TIRES. "ROADSTER" of Flint. No experiment, but a full grown Automobile.

**SHE'LL GET THERE AND COME BACK,
TOO, FOR SHE HAS POWER TO BURN.**

One of the finest, with her eighteen coats of paint and everything to match. She's a great favorite with the physicians.

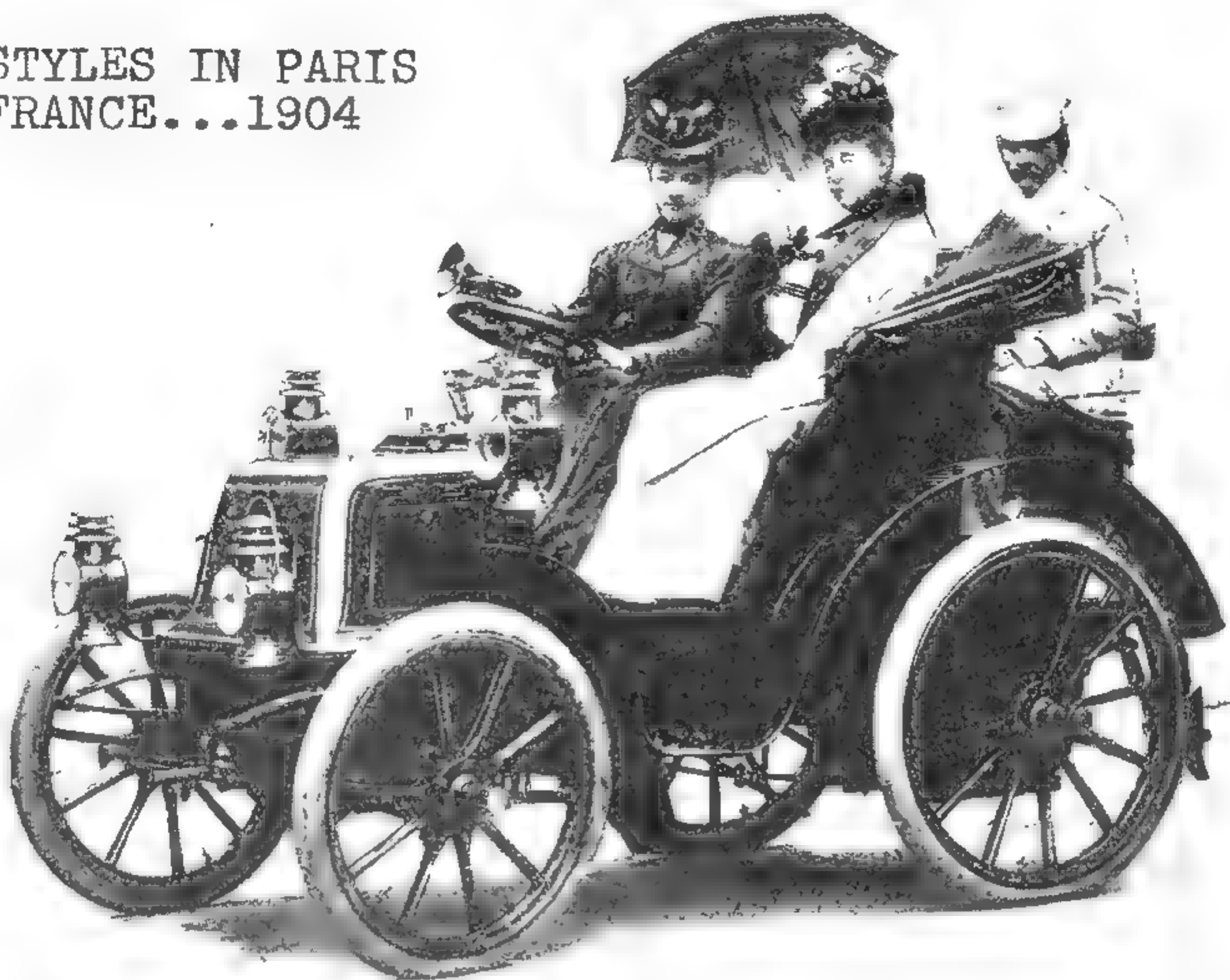
See her at the sign of the "Roadster," Space 35 Detroit, 56 in Annex, Chicago.

YOURS FOR THE ROAD,

P. S. In writing please mention that you saw us in The Horseless Age.

FLINT AUTOMOBILE CO., FLINT, MICH.

STYLES IN PARIS
FRANCE...1904

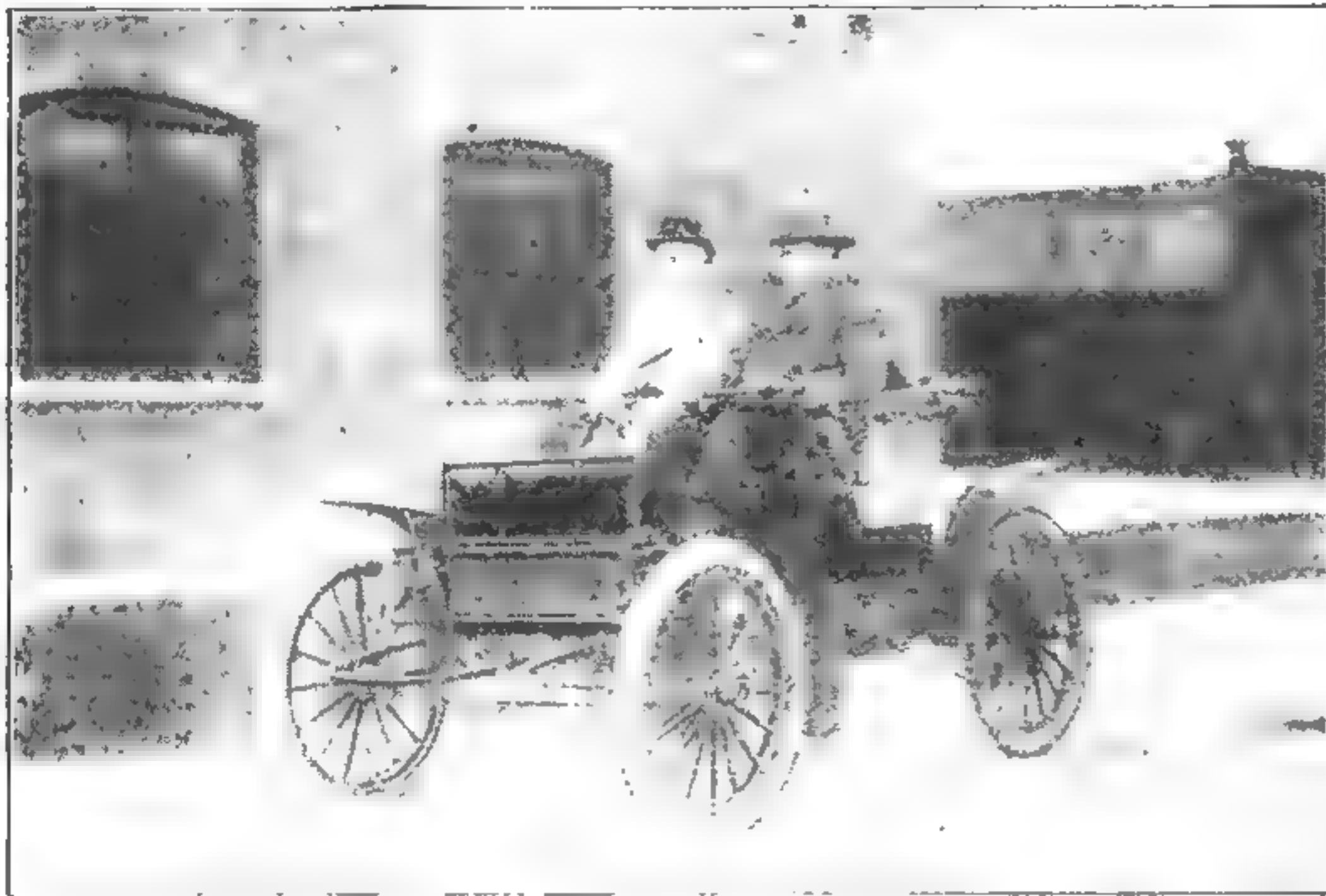


A PARK VICTORIA, THE MACHINE IN WHICH FASHIONABLE PARIS TAKES THE AIR IN THE BOIS DE BOULOGNE.



A MOTOR BREAK, A MACHINE IN MUCH FAVOR WITH PARISIANS FOR PARK RIDING AND FOR TOURING.

From a photograph by Barenne, Paris.



The SEARS

*The Business
Man's Car*

Nine Models

\$325⁰⁰

to

\$475⁰⁰

*Sold on
10 Days' Trial*

¶ You bought a typewriter for your office as soon as you found it would save you minutes in your daily work. You are ready and willing to pay a price within your means for a motor car that will save you hours each day.

The SEARS Is the Car for the Business Man

Who has not yet "made his pile" and cannot afford to be charged with extravagance by his business associates;

Whose business would grow faster if he could get through with more work in the same number of hours;

Who needs the restful diversion of sane outdoor exercise to increase his capacity for work;

Who has tired of home life in a congested neighborhood and yearns for a cottage in the suburbs for his family.

¶ In designing and building the SEARS we have included every feature that contributes to the highest efficiency, durability, strength, power and economy, at the same time omitting every feature that would add to the cost of the car without increasing its practicability and utility. The result is the greatest value in the automobile world.

*Lowest in Original Cost
Lowest in Upkeep Cost*

¶ How the SEARS repays its owner's investment, what it costs him for repairs and operation in every season and on all kinds of roads, are things you would rather hear from Sears owners themselves. Let us mail you a copy of "What Sears Owners Say." A postal card brings it.

Sears, Roebuck and Co., Chicago, Illinois

POWER AND SPEED

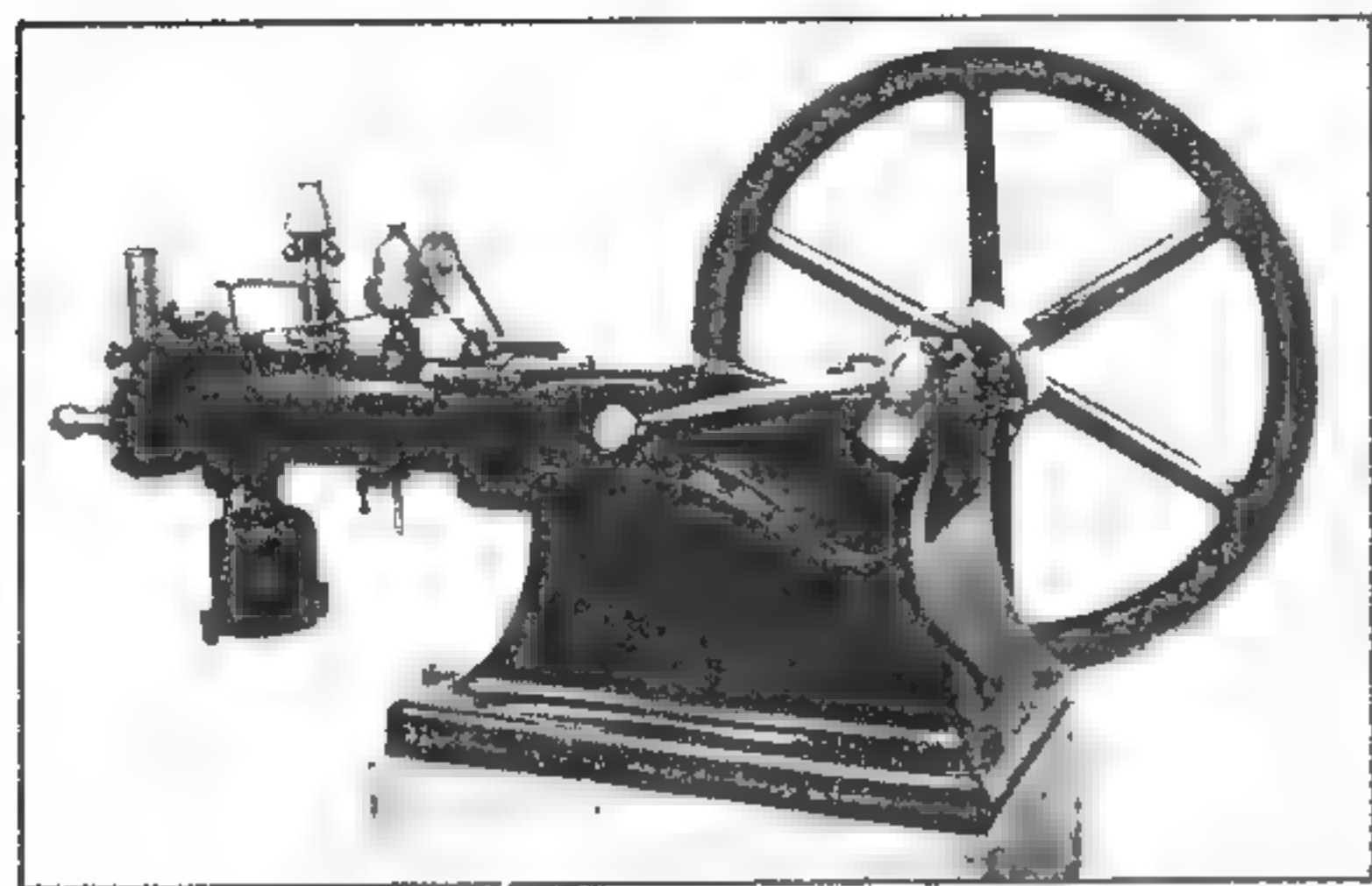


Photo: Science Museum, South Kensington
AN OTTO GAS ENGINE constructed by Crossley Bros. This was one of the first silent high-speed gas engines built under Dr. N. A. Otto's patent of 1876.

While the Otto engine was in course of development, other inventors were engaged on engines that worked on the two-stroke principle. In 1881 this type of engine, with a power stroke for every revolution of the crankshaft, was evolved in practical form and patented by Sir Dugald Clerk.

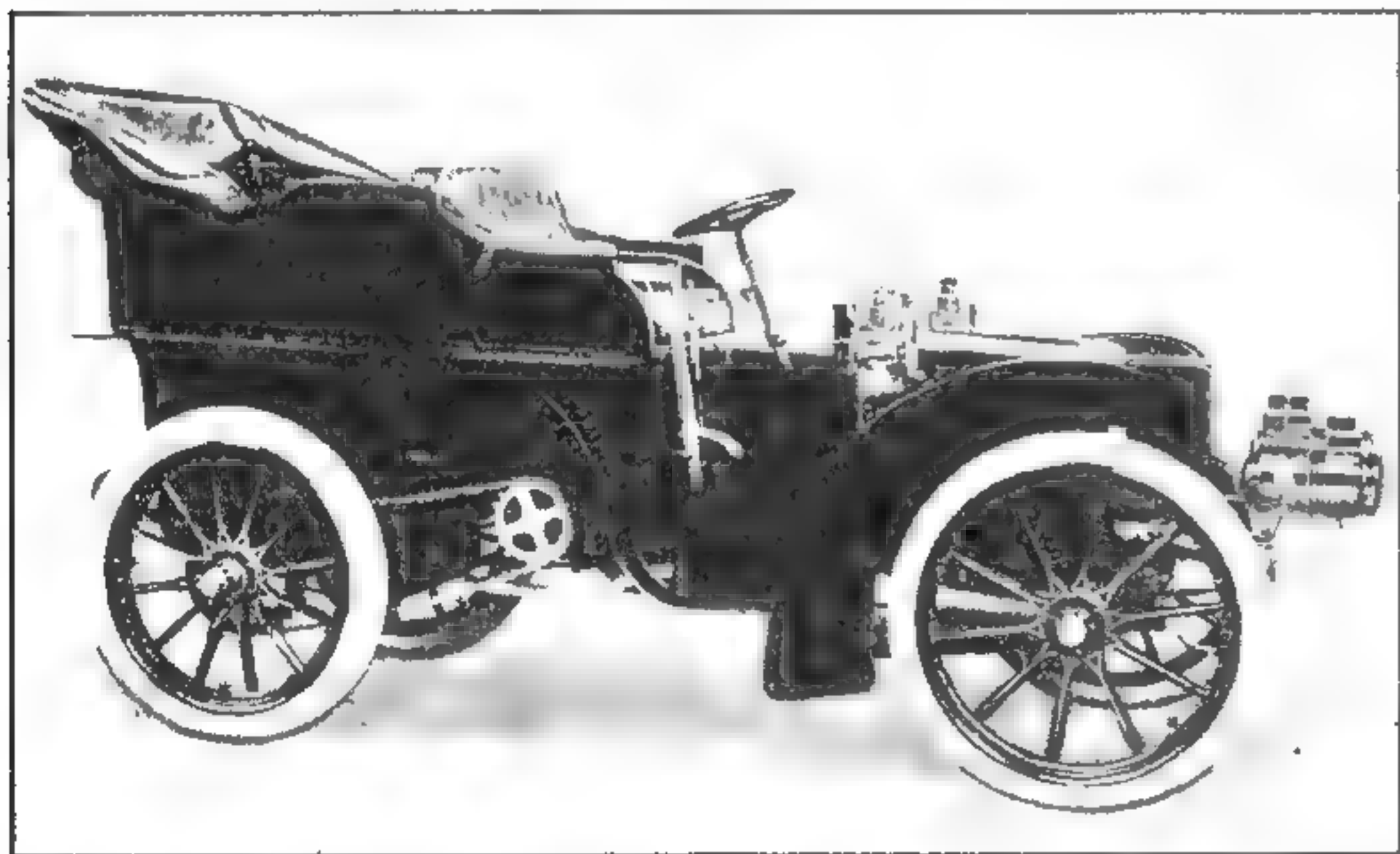
Petrol Engine Development

The earliest I.C. engines were generally operated on coal gas, but in due course petroleum spirit came into use and a portable form of power thus became available for transport purposes. The story of the develop-

ment of the petrol engine for motor cycles, motor cars and transport vehicles of all kinds is a whole history in itself and we can only deal with it here quite briefly. The name of Karl Benz (1844-1929), the famous German engineer, will always be remembered for his work on the design of the earliest petrol engines and motor cars. At an early age Benz acquired an



Motor Cycling
"MOTOR CYCLING'S" first number, published Feb. 12, 1902, contains the above photograph of J. Van Hooydonk. He is shown ready for his 200 miles' non-stop run on the track during the Motor Show at the Crystal Palace.



The Motor
THE FIRST NUMBER OF "THE MOTOR," published Feb. 13, 1903, contains this interesting picture of a 16 h.p. Napier car built for the Rt. Hon. A. J. Balfour, then Great Britain's Premier.

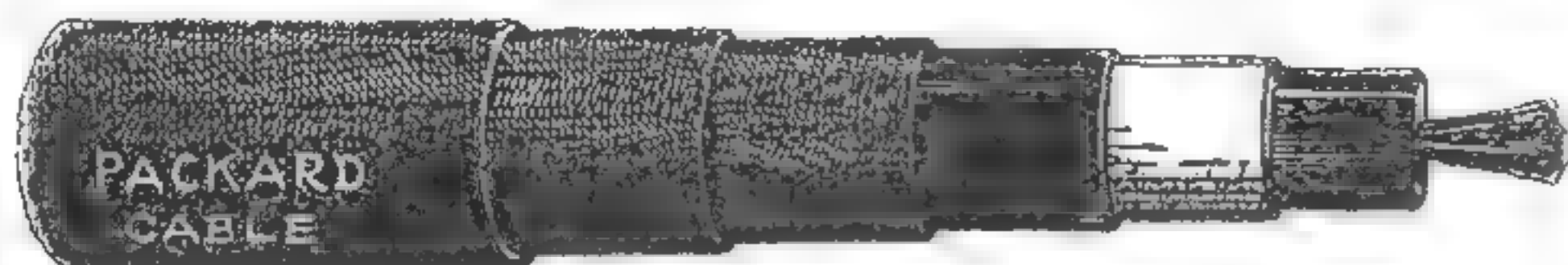
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REPRINTED FROM A 1944 ISSUE OF "POWER AND SPEED" (ENGLAND)

"Power and Speed" is now reprinted in U. S. A. by Floyd Clymer—110 Pages, 200 Illustrations..\$2.50 Copy.

1908

CYCLE AND AUTOMOBILE TRADE JOURNAL.

PACKARD ENAMELED IGNITION CABLE

Makes that Ignition System
SURE.

Manufactured especially for
**AUTOMOBILE AND MARINE
SERVICE**

THE PACKARD ELECTRIC COMPANY, WARREN, OHIO

STROMBERG CARBURETORS

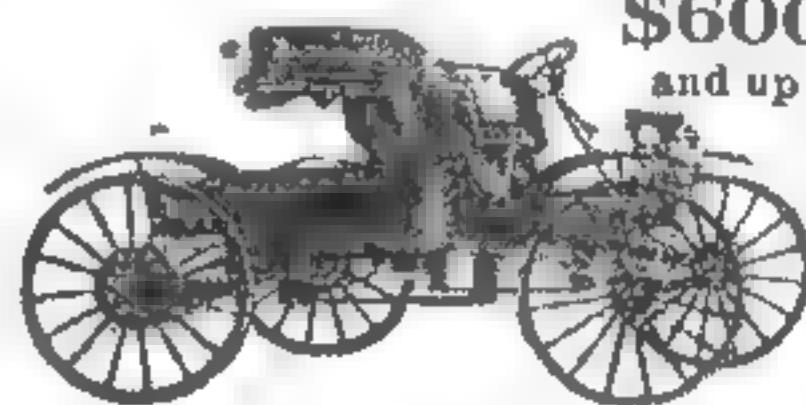
(Formerly known as The Goldberg)
GUARANTEED FOREVER. "TRY ONE AT OUR EXPENSE."
Write for Circular No. 4 It explains in full

Stromberg Motor Devices Co.,

Succ's to Goldberg Motor Car Devices Mfg Co
Michigan Ave. and 13th St. Chicago, Ill.
58th and Broadway, New York, N. Y.
426-428 Van Ness Ave. San Francisco, Cal.

Eureka Motor Buggy

Different from any other Motor Buggy on the market. Built to endure and to run. Does not go to pieces in a season—lasts for years.



\$600
and up

Operates at one-fifth the cost of an ordinary automobile. Climbs hills, goes over any road—muddy, rough or sandy, and speeds up to 30 miles per hour.

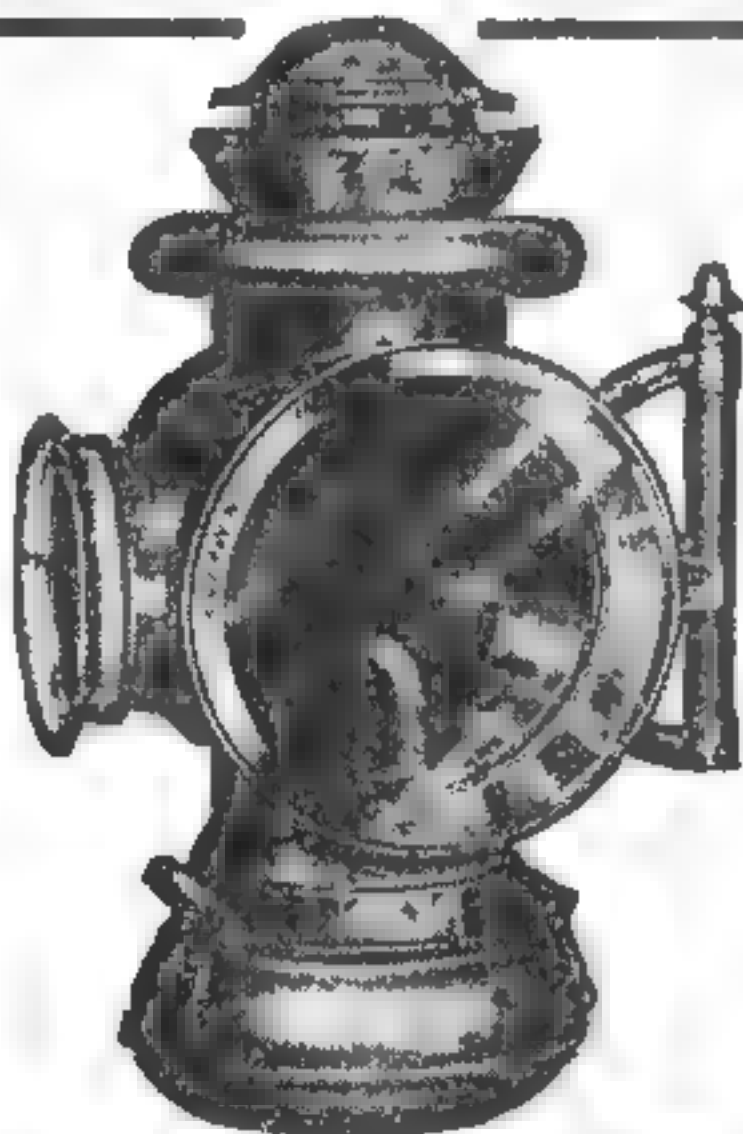
Consider This Equipment

12 h. p., 2-cylinder opposed 4 cycle, air-cooled engine; double drive; best ball bearing axles; wide auto seat; full leather quarter, three bow top and back curtains; rubber side curtains; best quality horn; 2 brass oil lamps; mud fender and running boards. It's guaranteed. Write for testimonials and Catalogue. Special Offer to Agents.

EUREKA MOTOR BUGGY MFG. CO.

Dept. L.

St. Louis, Mo



HAM'S VIGILANT TAIL AND INSPECTOR

How Is Your Rear Signal?

Is it guaranteed not to blow or jar out? If not, you had better get one that is, as this is just the time of the year when you will need it most, and when you least expect it you are going to get caught, it may be in an accident or it may be otherwise; in either case it will cost you more than the price of a good lamp.

Ham's Lamps are the best on the market and they are guaranteed not to blow or jar out. Let us send you one of our catalogues. Address 'Dept. D.'

C. T. Ham Mfg. Co., Rochester, N. Y.

Motor 16 H. P., two cylinders, four cycle type.

Friction Drive, Gearless.

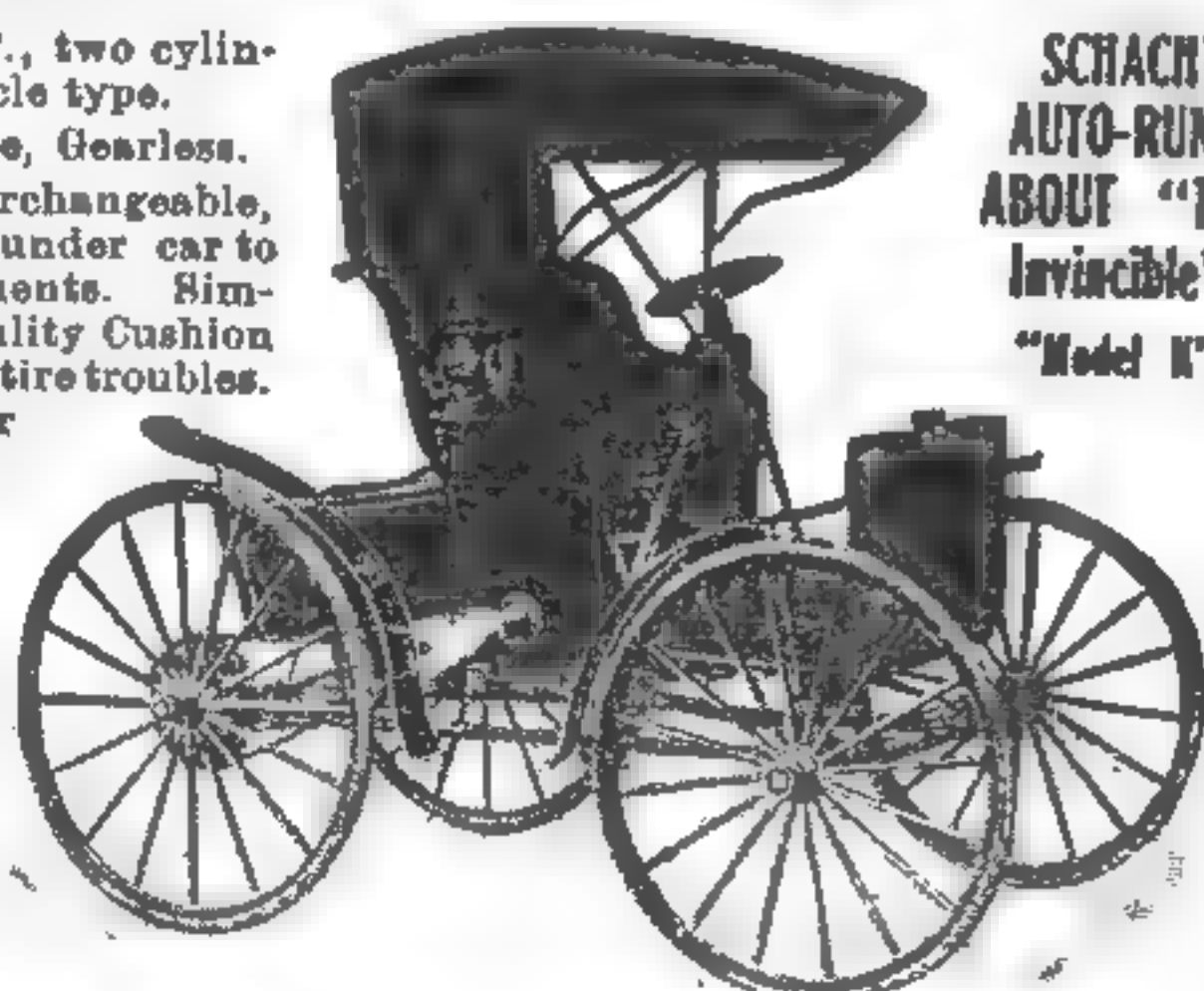
All parts interchangeable, no crawling under car to make adjustments. Simplicity, Durability Cushion Tires, no more tire troubles.

An all the year 'round car.

PRICES RIGHT.

Send for catalog and details.

Up-to-date Agents wanted.



SCHACHT
AUTO-RUN-
ABOUT "The
Invincible"
"Model K"

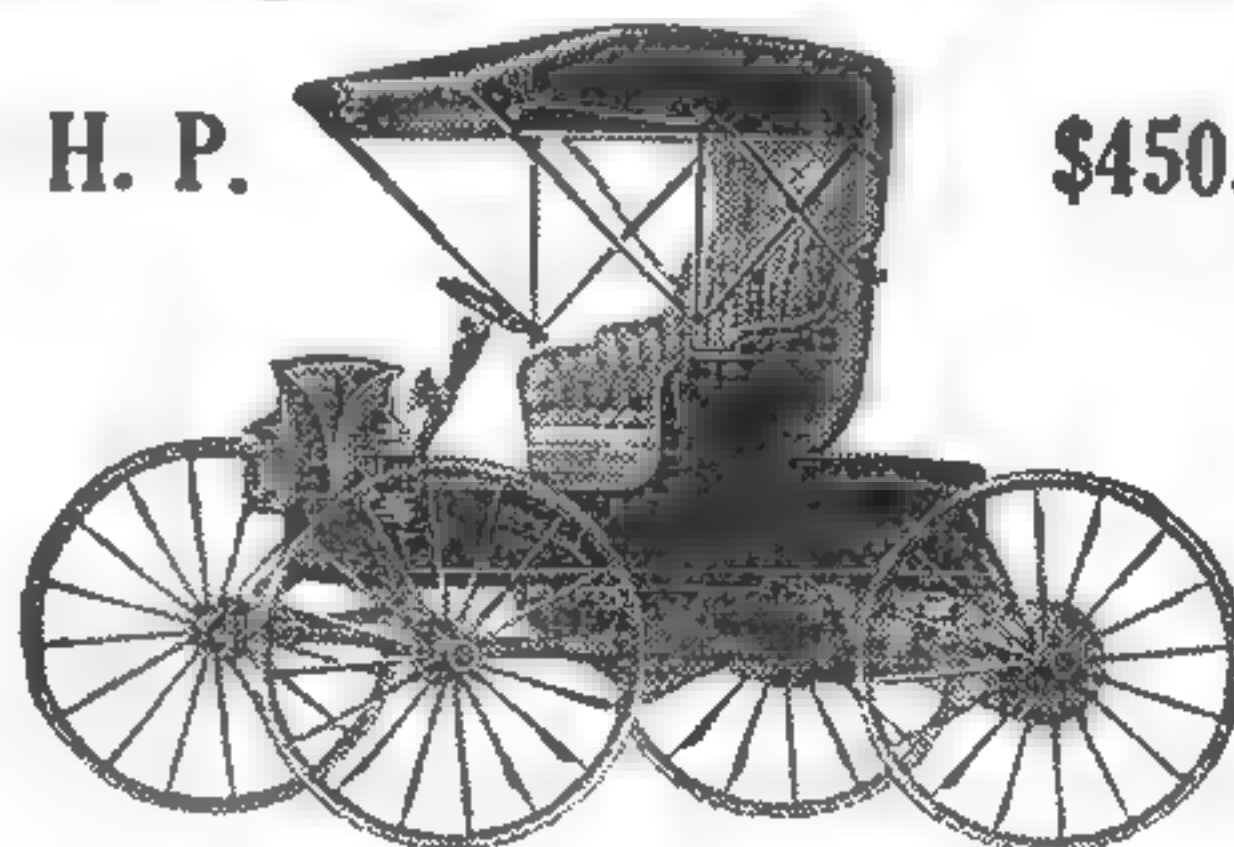
1909 MODEL NOW READY

THE SCHACHT MFG. CO., Cincinnati, Ohio

Kiblinger Motor Vehicles

12 H. P.

\$450.00



Air-cooled, 2-cylinder. 30 miles on 1 gallon of gasoline. 30 miles per hour 9 different styles Climbs hills. Runs through mud. Winter and summer. Ask for CATALOG 46 and "The Proof." Standard Manufacturers, A. M. C. M. A.
W. H. KIBLINGER CO. - Auburn, Indiana

THE CITY OF THE AUTOMOBILE.

1904

BY EDWIN WILDMAN.

THE REIGN OF THE HORSELESS VEHICLE IN PARIS, WHERE IT HAS GAINED A SUDDEN AND REMARKABLE VOGUE AS A FASHIONABLE FAD, AS A MEANS OF SPORT, AND AS A PRACTICAL FACTOR IN TRADE AND TRANSPORTATION.

IT is most appropriate that Paris, with its matchless boulevards, its extensive parks, and its fine tributary highways, should be the city of the automobile. Then, too, Paris is the epitome of cosmopolitanism. Nowhere in the world, her citizens will tell you, is there such unrestricted freedom of action and speech. Her streets, her parks, and her newspapers are living voices of her republicanism.

The automobile solves the problem of a

portable power adapted to the needs of personal and commercial transportation without the supplementary inconvenience and expense of oats thrice daily, or the limitations of steel tracks and prescribed routes of travel. Potentially, at least, its utility is unlimited. In Paris, it has long since passed the experimental stage, and has taken its place in every department of transportation. It rivals the horse and makes the steam engine look to



A MOTOR QUADRICYCLE IN THE BOIS DE BOULOGNE.

Drawn by E. V. Nadherny from a photograph.

its laurels. It responds to the touch of the schoolgirl, and propels great trucks of merchandise through the city streets. It has made its way into society. About five carriage went forward at great strides. From the rude, clattering machine of a few years back, which bumped into everything and everybody and tore over the



THE MOTOR TRICYCLE, WHOSE POPULARITY IN PARIS RIVALS THAT OF THE BICYCLE.

From a photograph by Barègne, Paris.

years ago such men as the Count de Dion, the Baron de Zuylen de Nyevelt, the Marquis de Chasseloup-Laubat and his brother, the Count de Chasseloup-Laubat, began to enter the automobile races and to make records to Amsterdam and Bordeaux. With other fashionables, they formed the Automobile Club de France. So France became automobilized, and the horseless

gravel like a mad bull, the automobile calmed down into a well regulated, swift running, non vibrating vehicle with good manners and tractable ways.

The petroleum machine is yet far from perfection. It often sputters and clatters a great deal at the start, but when it settles down to a thirty mile gait it behaves splendidly.

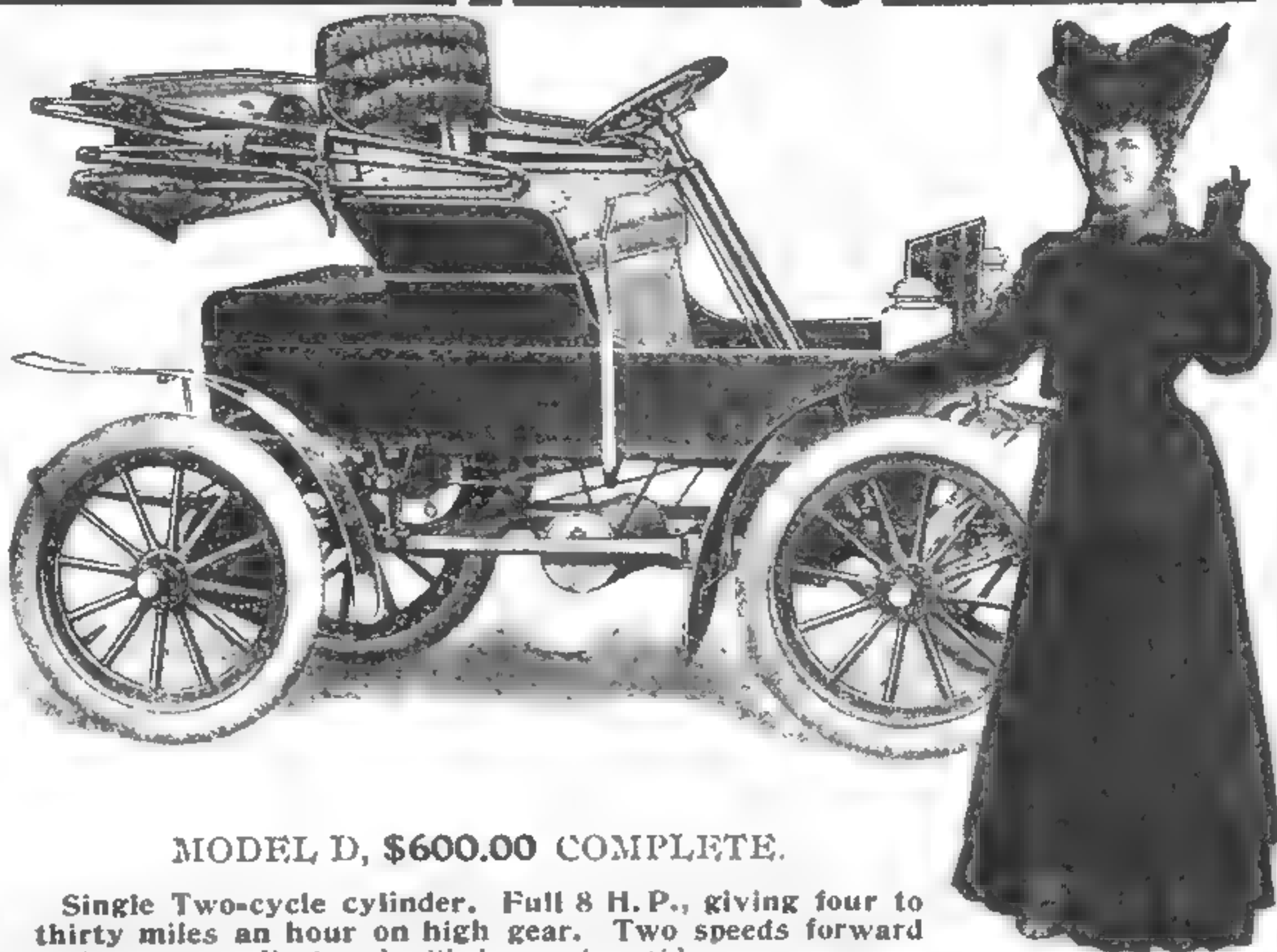
MUNSEY'S MAGAZINE—ADVERTISING SECTION.

IT'S HERE, AND IT'S A JEWEL

YOU'LL be interested in **THE JEWEL**, at sight, because it has the simplest possible motor, and is unequalled for ease of control and thorough reliability.

There are no valves to adjust, repair or replace—no small outer parts. No complicated machinery, therefore, to master. Operation of **THE JEWEL** is as nearly automatic as is possible for mechanism actuated by human will.

Important changes make the 1907 models even more desirable than former types. Write today for booklet telling all about this sure, safe and speedy car.



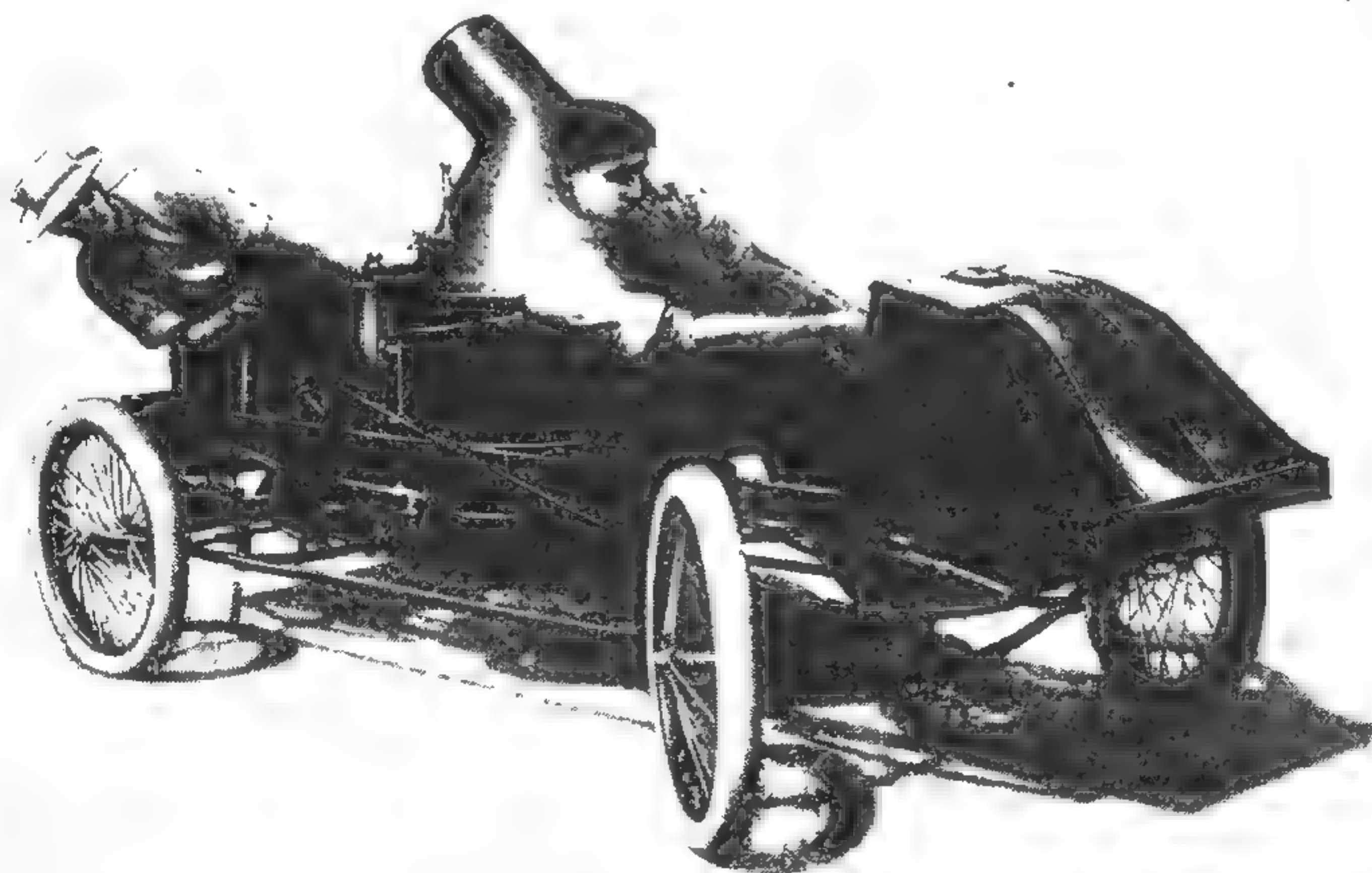
MODEL D, \$600.00 COMPLETE.

Single Two-cycle cylinder. Full 8 H. P., giving four to thirty miles an hour on high gear. Two speeds forward and reverse. Equipped with lamps, top, side curtains, storm front and tools.

THE FOREST CITY MOTOR CAR CO.

172 WALNUT ST., MASSILLON, OHIO

THE JEWEL

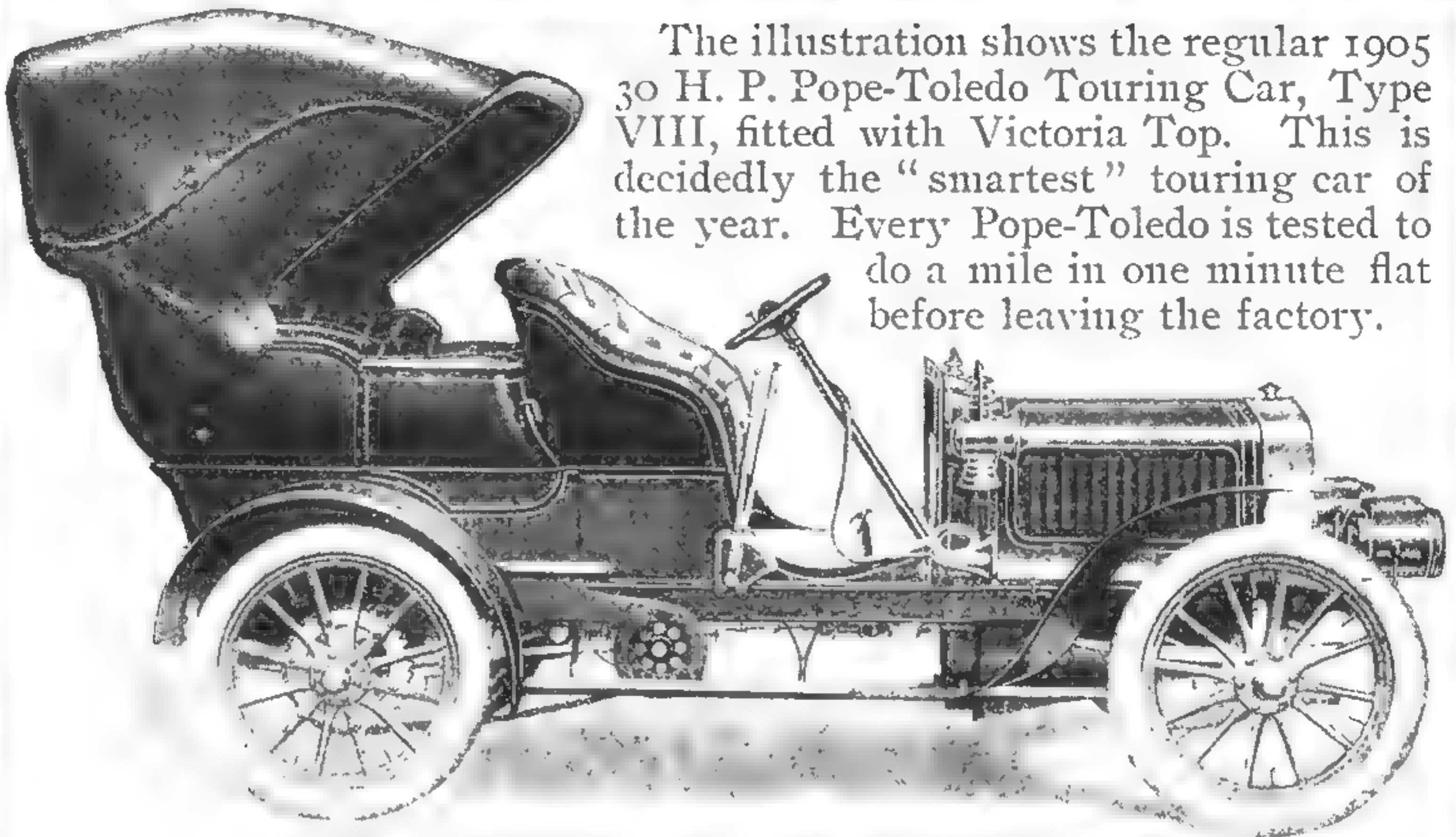


THE STEAM AUTOMOBILE BUILT BY GEORGE CANNON, A HARVARD STUDENT, WHICH HOLDS THE SPEED RECORD FOR STEAM CARRIAGES, HAVING DONE A MILE IN SIXTY-SEVEN SECONDS AND THREE-FIFTHS—IT WAS BARRED FROM THE BRIGHTON BEACH RACES OF AUGUST LAST BECAUSE IT REQUIRES TWO MEN TO OPERATE IT.

1905

MUNSEY'S MAGAZINE—ADVERTISING SECTION.

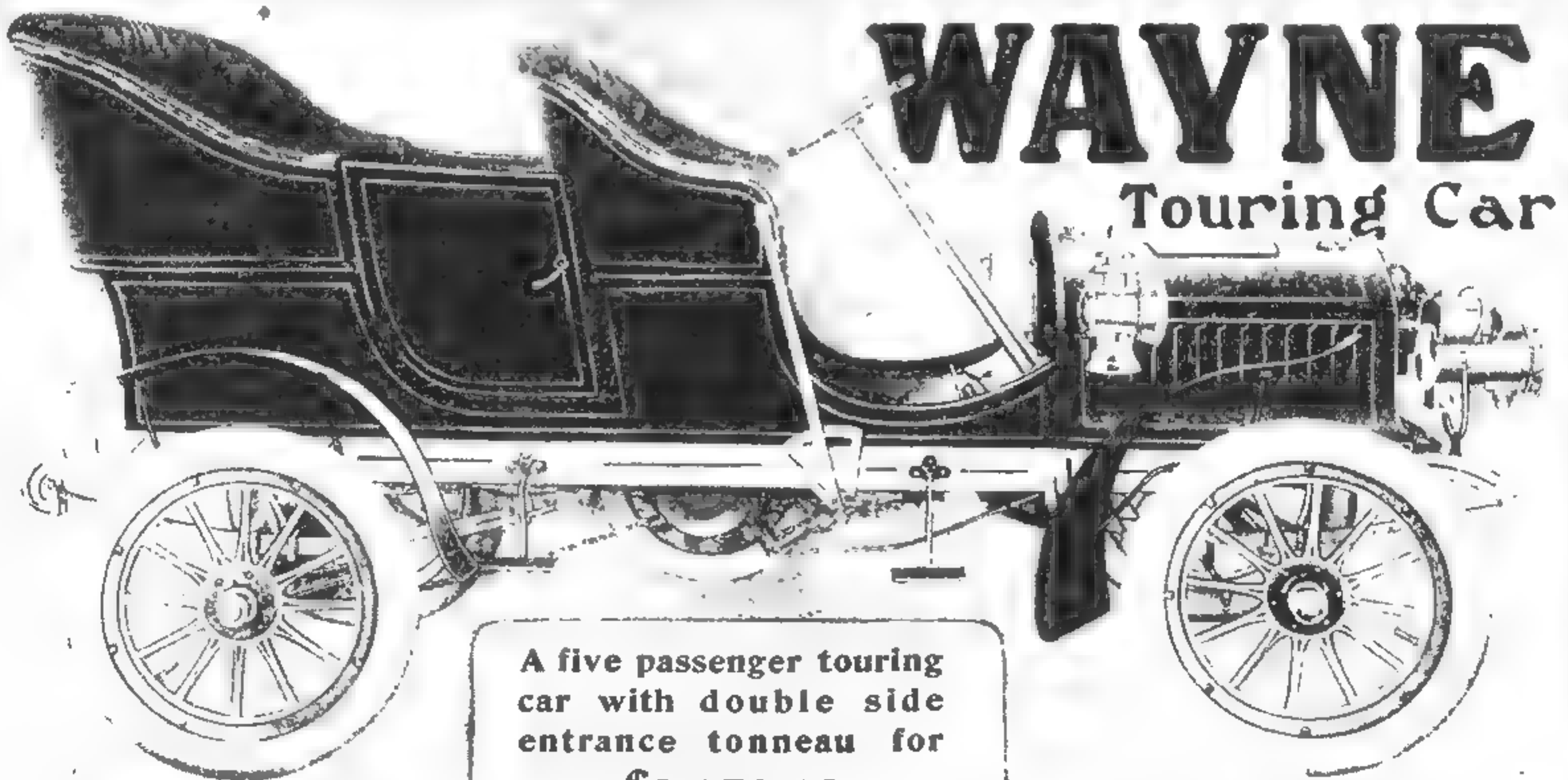
The Quiet Mile-A-Minute Car



The illustration shows the regular 1905 30 H. P. Pope-Toledo Touring Car, Type VIII, fitted with Victoria Top. This is decidedly the "smartest" touring car of the year. Every Pope-Toledo is tested to do a mile in one minute flat before leaving the factory.

Catalogue and name of our agent nearest you on request.

Pope Motor Car Co., Desk A, Toledo, Ohio.



WAYNE Touring Car

**A five passenger touring
car with double side
entrance tonneau for
\$1,250.00**

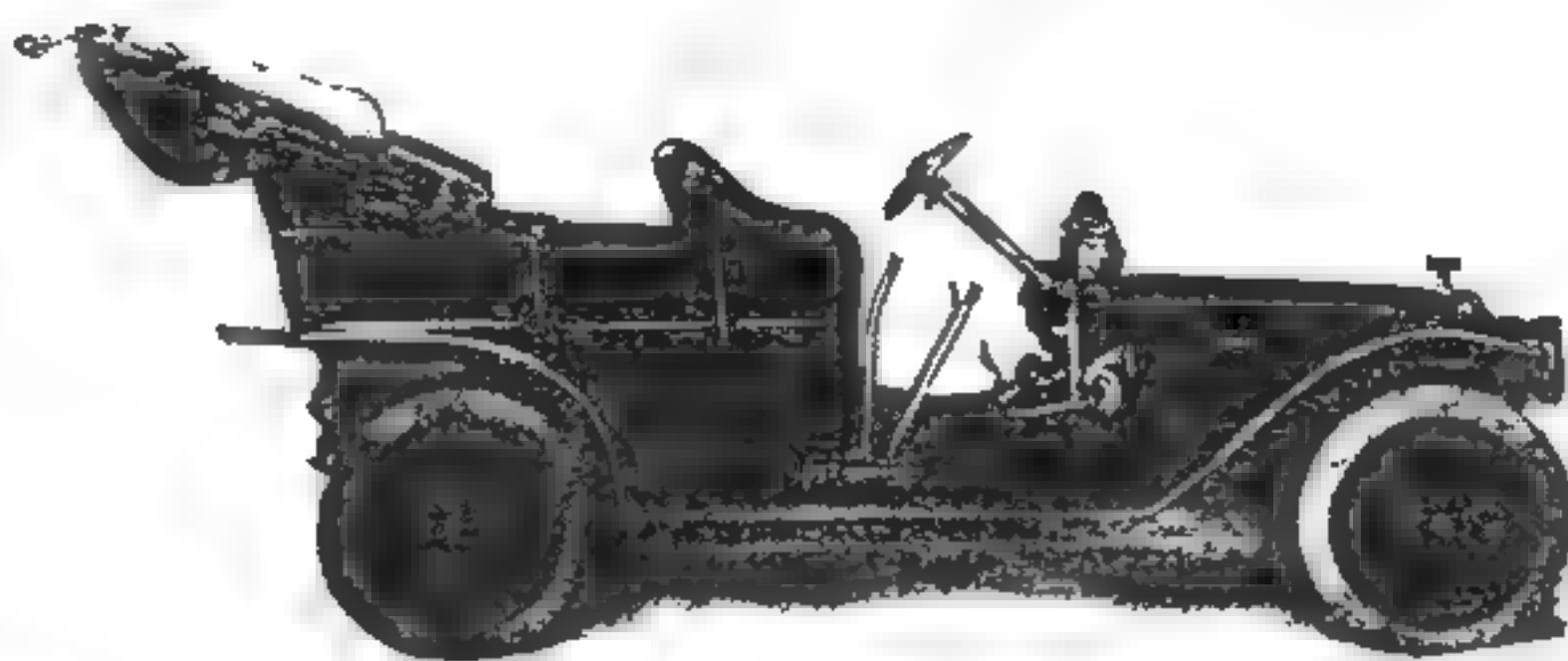
The Wayne Model "C" has a 16 H. P. double opposed cylinder motor, planetary transmission, and 90 inch wheel base. The motor and fly wheel are hung under the chassis frame making the center of gravity low. This improves the running of the car, gives stability in turning corners and by decreasing skidding on the curves lengthens the life of the tires so that the expense of running the Wayne is less than any car of similar type.

We also make Model "A" the same type of car with rear entrance detachable tonneau for \$1,200 00. Both cars equipped with two oil side lamps, tail light, horn and set of tools.

A catalogue giving full particulars of both cars, and which also describes in detail our 24-28 H. P. side entrance 4 cylinder car will be sent on request.

**WAYNE AUTOMOBILE COMPANY, Department A
Detroit, Mich.**

In answering any advertisement on this page it is desirable that you mention MUNSEY'S MAGAZINE.

FORD**1907****SIX-CYLINDER TOURING CAR Model "K"**

History but repeats itself when each succeeding season proves Henry Ford to have been "a year ahead" of all competitors.

Do you remember how all last season we rang the changes on that phrase "the year-ahead-car." We were talking of the six-cylinder type.

We warned the buyer that if he bought a four-cylinder car of high power (more than 40 h. p.) he would find in 1907 he had a car that was a year behind the times.

Makers of "Fours" tried to neutralize our information—tried to disprove our contention. They kept it up till within a few days—till the Olympiad show at London, England, The Paris show; the Berlin and Liepsic expositions proved beyond a doubt that the day of sixes had arrived—that in cars of high powers this type is now SUPREME.

And Ford was First—again headed the column of progress, just as he did in the double opposed, then the four cylinder touring car, then the four cylinder \$500 run-about and, simultaneously, the six-cylinder touring car.

Of course others claim to have built sixes first—history repeating itself again; for when a type has arrived at that point where others covet the honor of its introduction we know FORD HAS WON AGAIN.

The 1907 Model "K" Ford is the same as that of 1906 but its power (still called 40) has been increased 20 per cent. by refinements of details, grinding cylinders and other slight changes. Chrome nickel steel is used throughout—all gears, shafts and even the frame. THE FORD dual ignition system, with two sets of plugs has been copied by many makers both in America and Europe—we appreciate the compliment.

One thing you can always count on—the FEATURE THEY MOST CRITICISE in the latest Ford car is THE ONE THEY COPY FIRST. The 1907 "K" has a lot of features others will adopt for 1908.

Ford Model "K" six cylinder motor; 40 h. p. at the wheels; sixty miles an hour—down to four on the high gear, by throttle control alone. The silence of an electric, the flexibility of a steam engine, the simplicity and economy of a gasolene motor.

We were first and we are still the largest builders of "sixes" in the world; the quantities makes our price possible

\$2,800.00**FORD MOTOR COMPANY****Factory: DETROIT, MICH.**

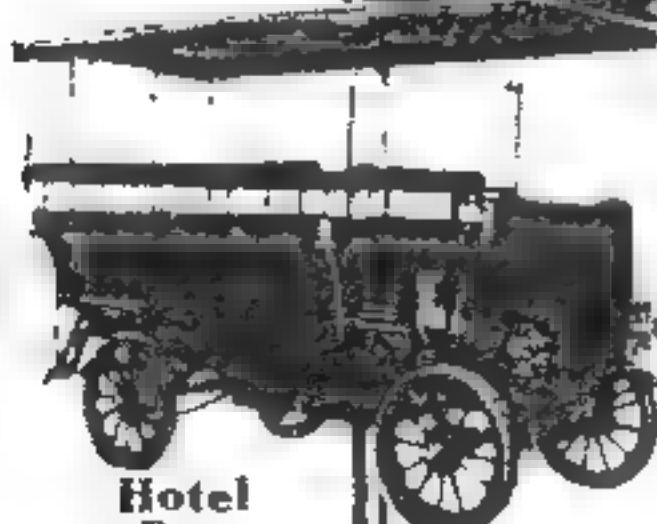
Member American Motor Car Manufacturers' Association. Chicago.

BRANCHES: 147-149-151-153 Columbus Ave., Boston; 1721-23 Broadway, New York; 727 Main Street Buffalo; Broad and Buttonwood Sts. Philadelphia; 1414 Michigan Ave., Chicago; 1913 S. E. Euclid Ave., Cleveland and 315-320 11th St., Kansas City.
CANADIAN TRADE supplied by Ford Motor Company of Canada, Ltd., Walkerville, Ontario.

We equip our vehicles with bodies to suit your special requirements
Price, \$2000

The Rapid Idea
A car for every
Commercial purpose

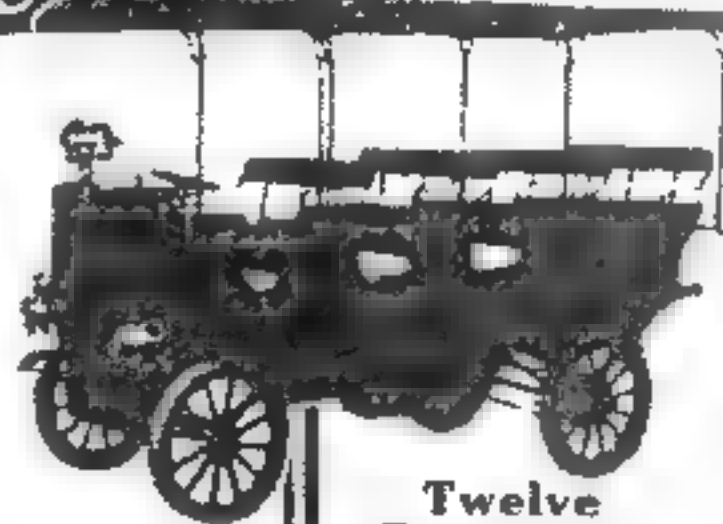
Every car guaranteed for one year
Price, \$1800



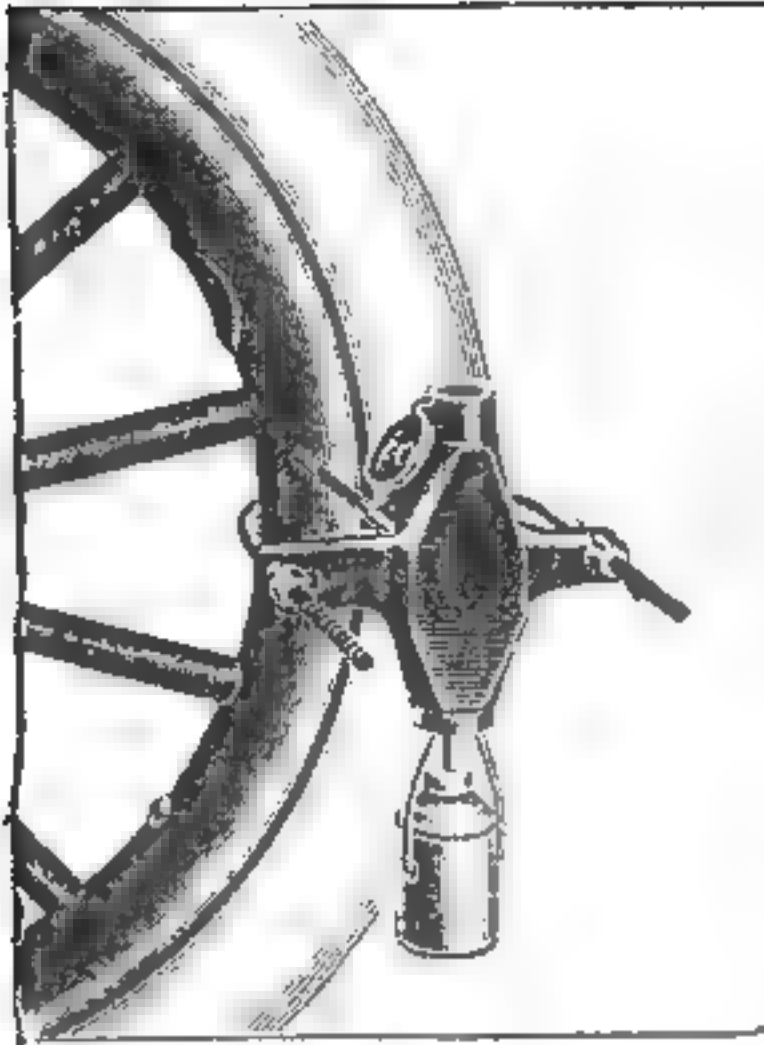
Hotel Bus
Twelve Passenger

No matter what your delivery problem is there is a Rapid Motor Car that will solve it. Each car is built to carry a maximum load at a safe, practical speed, and at a maximum expenditure of money and energy. It can work 24 hours a day, if you wish, without tiring, and it takes hills and grades with scarcely any noticeable reduction of speed. If you want a light or heavy delivery wagon, a light or heavy truck, a bus or club brake, or a large sight-seeing car, write me for particulars, and I will tell you all about the car you should have. CATALOGUE FREE.

E. P. Henry, Sales Manager
Rapid Motor Vehicle Co. Pontiac, Mich.



Twelve Passenger
Sight-Seeing Car



Anybody Can Use It

Blow-outs, sand-boils, glass cuts or other damaged spots on outer casings; torn off stems, split or punctures to inner tubes vulcanized as good as new with our Vulcanizer. We want to send you circulars and what others say.

The
"Stitch-in-Time"
Vulcanizer Co.,
Topeka, Kan., U.S.A

THE AUTO BUFFET

☐ A portable box that is strapped to the running board of your car. Can be used as a seat.

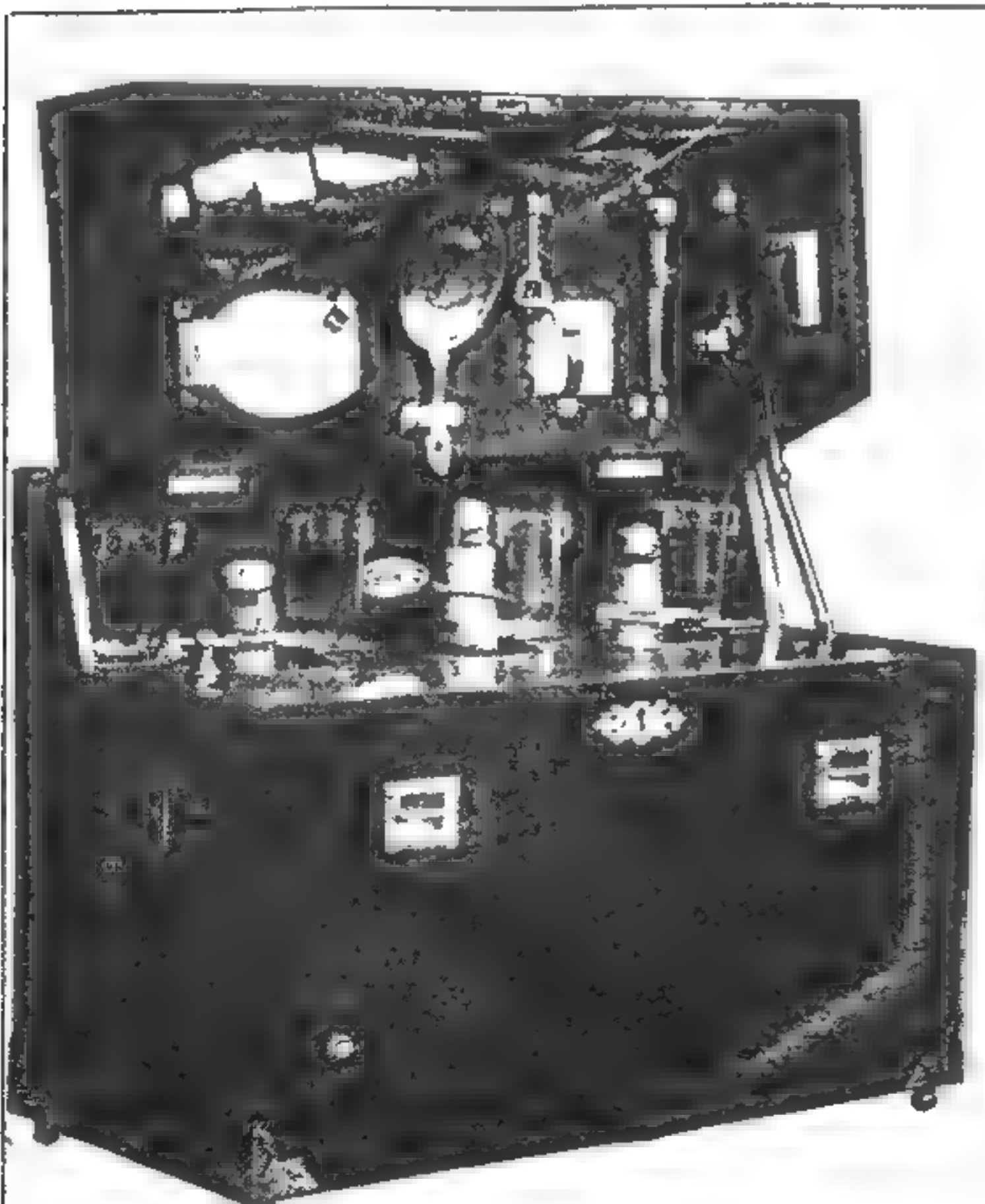
☐ Will retain temperature of 36° for 15 hours.

☐ Carries all the accessories of a first-class buffet.

☐ Lighted by electricity, handsomely finished, sanitary in every respect. Write us for booklet of information. Lively Rocky Mountain and Coast agents wanted.

The Wotherspoon Buffet Company

145 E. 42nd St., New York, N. Y.



COLORADO LAD YOUNGEST AUTOMOBILE DEALER IN THE WORLD.

Berthoud, Colorado, boasts of the youngest automobile agent in the United States, and that means the world. J. F. Clymer, eleven years old, who has sold thirteen machines in two years who represents the Reo, Maxwell and Cadillac cars, is the little hustler, and declares that he has "Teddy Roosevelt's assurance" that he is the youngest agent in the business.



J. FLOYD CLYMER, Berthoud, Colo.
The youngest automobile dealer in the world. He is eleven years old and has sold thirteen machines in the past two years.

Like all good dealers, Master Clymer keeps in touch with the trade through a subscription to Motor Field. He sends his favorite magazine a business like announcement which reads as follows:

NOTICE.

I will continue to do business during 1907 at my old office with Dr. J. B. Clymer, and can supply your wants in repairs and supplies, and can save you money.

Remember, I sell the famous Reo, the Maxwell and the Cadillac. See me for prices and terms. Yours truly,

J. F. CLYMER, the Kid Agent.

BUICK INVADING EUROPE.

The Buick motor car company, by reason of extensive additions to its factories expects to double its output the coming season, and is turning its attention to the European market. John L. Poole has been chosen as Foreign sales manager and leaves for Paris at once.

MITCHELL CATALOG ATTRACTIVE.

The Mitchell Motor Car Company of Racine, Wis., is mailing a very pleasing catalog of 1907 models which is a very attractive example of artistic and tasteful color work.

FROM MOTOR FIELD MAGAZINE..

"IT'S A STRONGER PROPOSITION THAN YOU HAVE IMAGINED"

DEALERS

EXAMINE

THE LAMBERT

USERS

INVESTIGATE

THE FRICTION DRIVE CAR

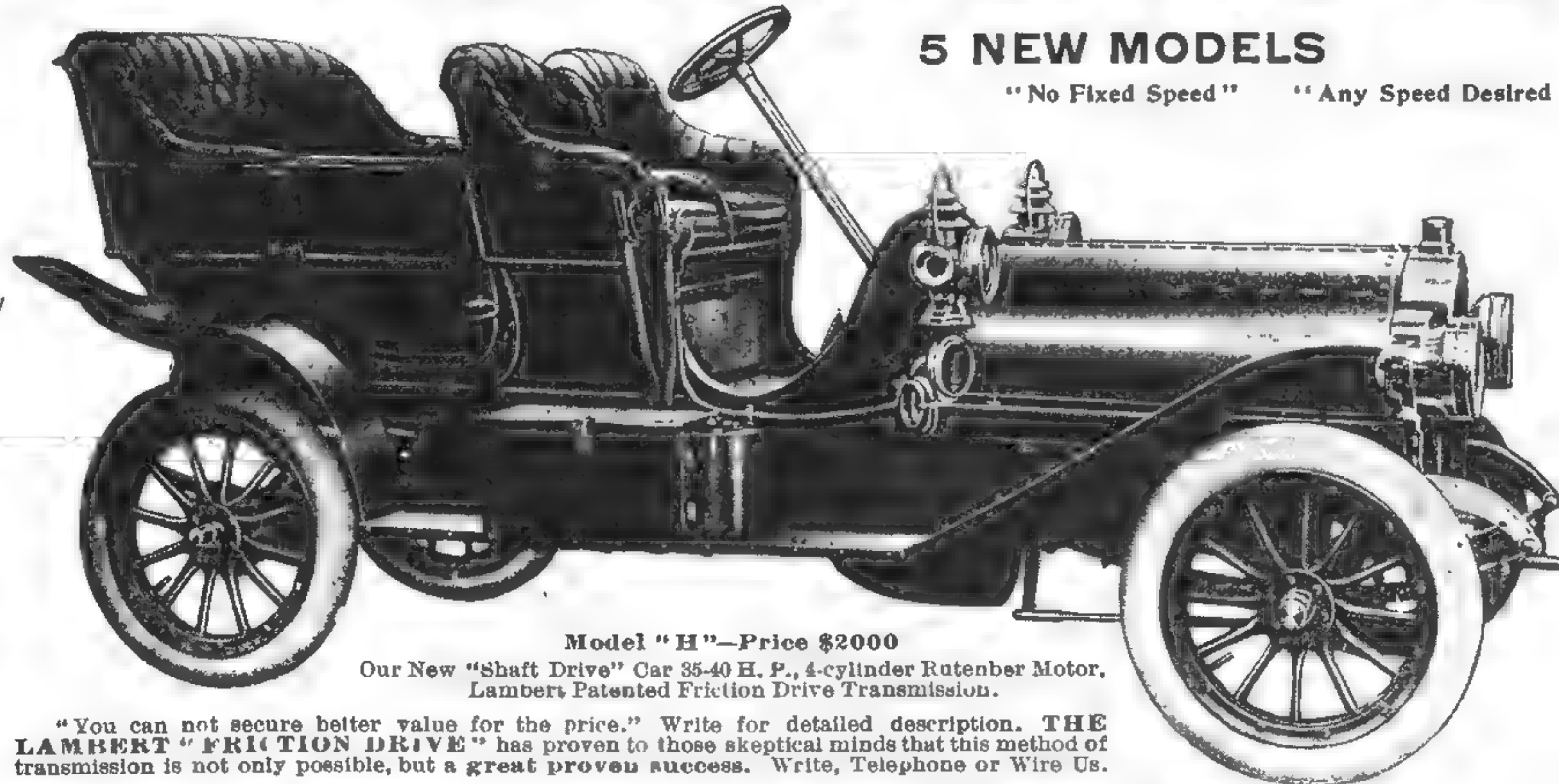
5 NEW MODELS

"No Fixed Speed"

"Any Speed Desired"



These Cars Are Mechanically Right. Lambert Cars Have Features Not Found on Other Cars



Lambert Cars Have Been A Proven Success for Years



Model "H"—Price \$2000

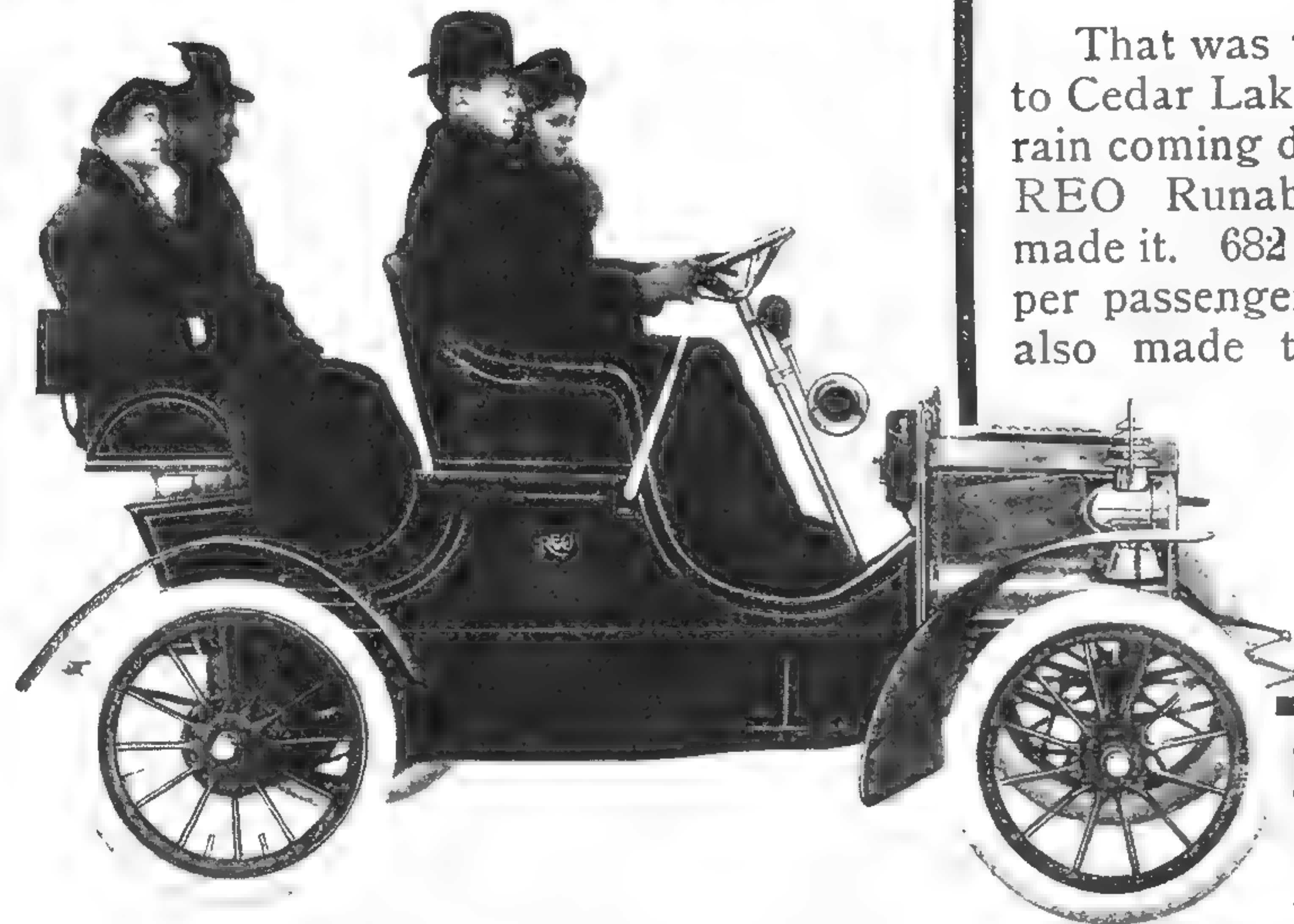
Our New "Shaft Drive" Car 35-40 H. P., 4-cylinder Rutenber Motor, Lambert Patented Friction Drive Transmission.

"You can not secure better value for the price." Write for detailed description. **THE LAMBERT "FRICTION DRIVE"** has proven to those skeptical minds that this method of transmission is not only possible, but a great proven success. Write, Telephone or Wire Us.

THE BUCKEYE MANUFACTURING CO., - ANDERSON, IND., U. S. A.

Good Dealer Agents Wanted in a Few Localities Members American Motor Car Manufacturers' Association, New York. Write for Special Art Catalogue

REO ..4-Seat.. \$675 Runabout



Four people; 57 miles; $1\frac{3}{4}$ gallons of gasoline.

That was the record (from Chicago to Cedar Lake, Ind., October 18th—the rain coming down in sheets). And the REO Runabout was the car that made it. 682 miles, 4 passengers; \$3.38 per passenger. The REO Runabout also made this record and won the first prize gold medal in the famous six day New York Economy Test.

No other car could have made either of these records.

REO 5-Passenger Touring Car \$1250

2-Passenger Runabout, \$650

4-Passenger Runabout, \$675

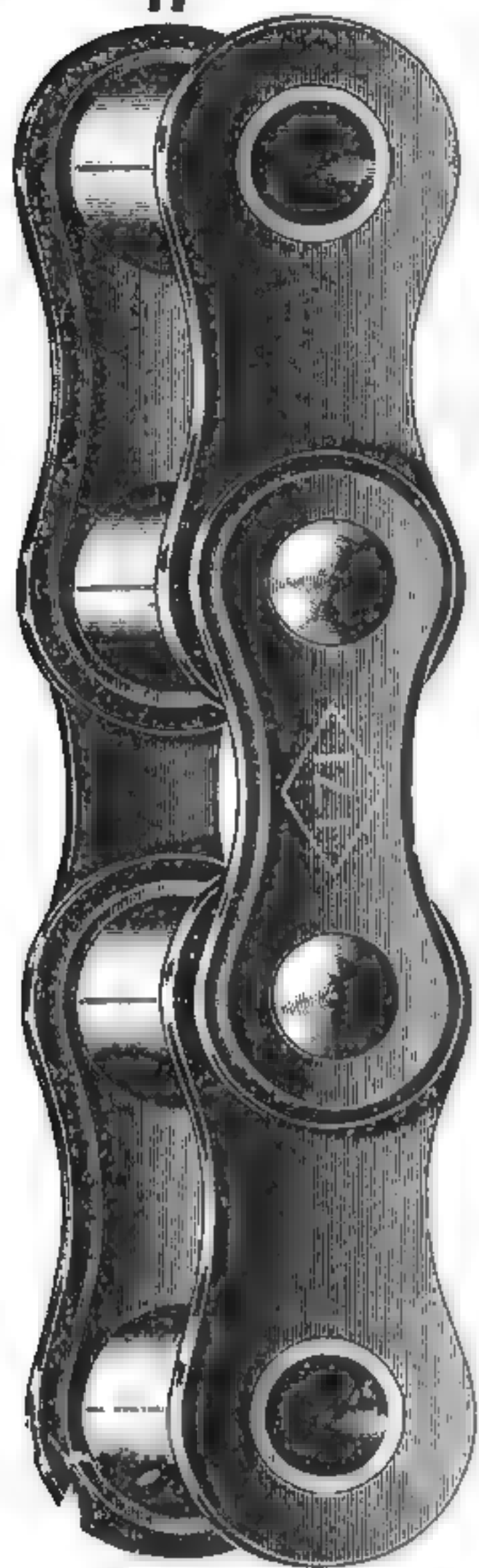
Write for the 1907 catalogue which describes it in detail. Also the REO \$1250 five-passenger Touring Car.

R. M. OWEN & CO., Lansing, Mich.
(Sales Agents)

When Writing to Advertisers, Please Mention Motor Age.

MARCH 7, 1907

OCT. 1908



DIAMOND CHAIN DRIVES MORE PRACTICAL THAN GEARS

LESS WEIGHT.

No heavy shafts or clumsy gear cases.

LESS VIBRATION.

The chain cushions the engine blows. Gears transmit these jolts to rack the entire frame.

LESS FRICTION AND WEAR.

Chain ROLLS into mesh. Gears grind against each other and by every law of mechanics must waste far more power in this useless friction.

SAFER FROM ACCIDENT AND EASIER TO REPAIR.

The flexibility of chains permits them unprotected, to withstand injury from accidents which would ruin gears in spite of all their casings. You can't carry extra gears in the repair kit. You can carry extra chain and it takes no mechanical genius to make a repair.

LESS ATTENTION.

Exposure to hot, cold, dusty or sloppy weather makes no difference with chains, but gears must be proof against the smallest particles of foreign matter and must be more carefully lubricated.

LOWER COST TO MAINTAIN.

Chain drives cost less to make and maintain than gears.

Write for list of leading American Cars that use Diamond Chain.

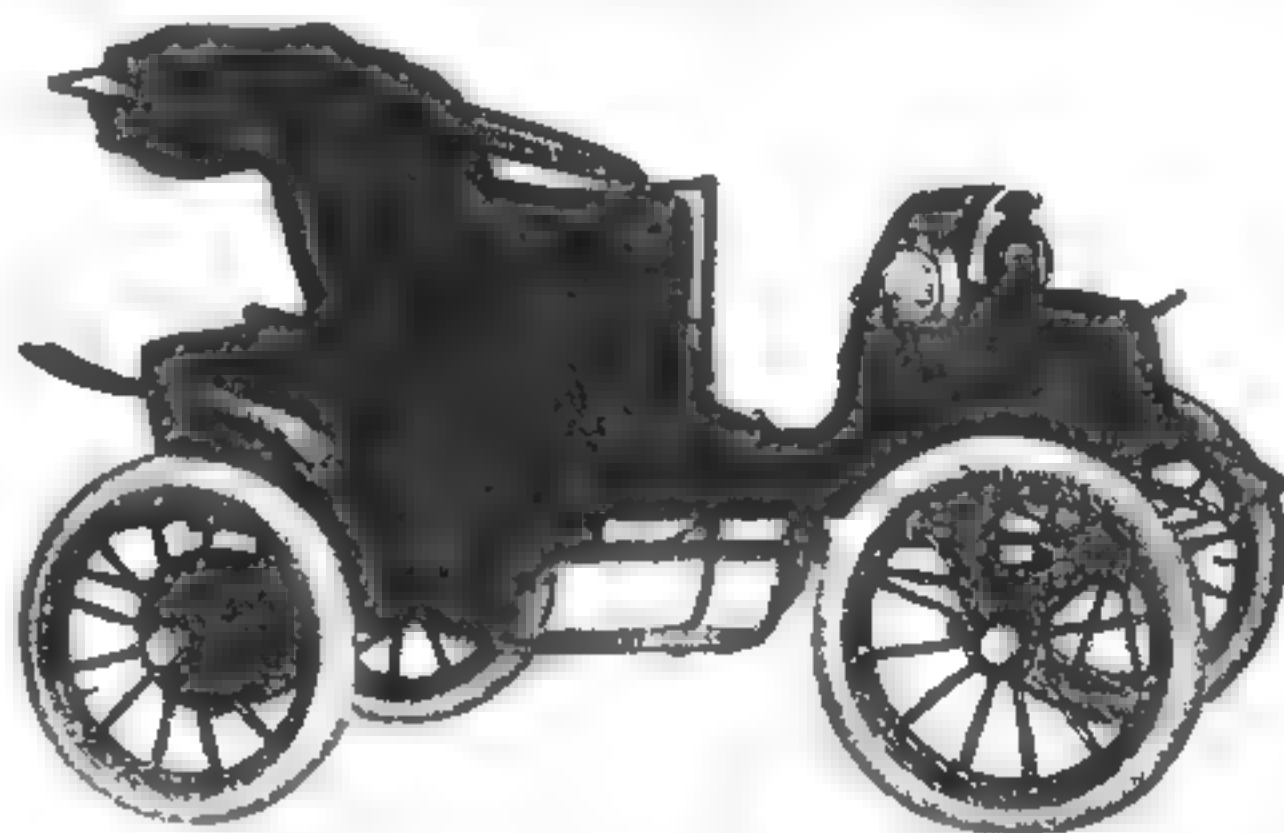
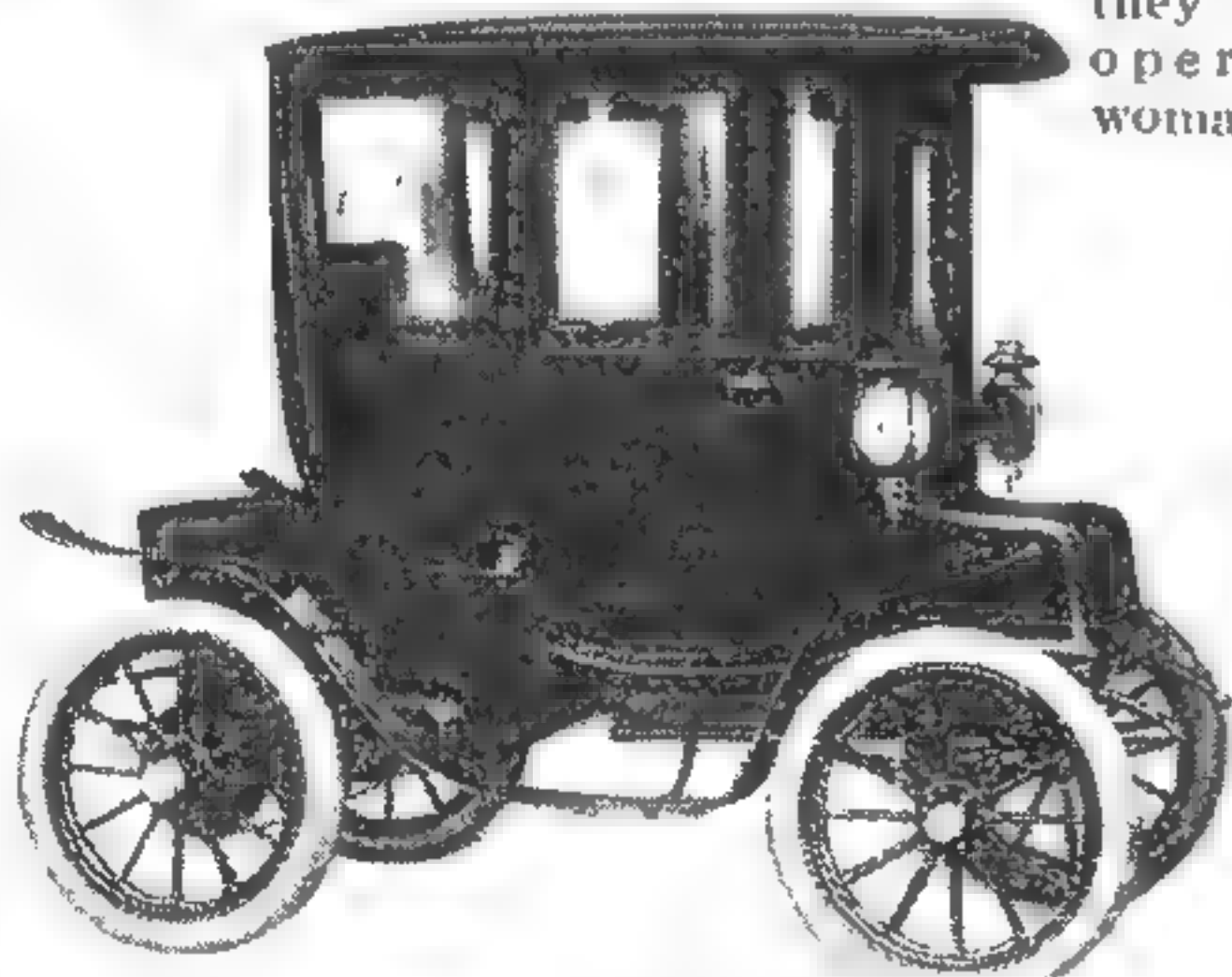
DIAMOND CHAIN & MFG. CO.

CAPACITY 8,000,000 FEET PER YEAR

260 W. Georgia St., No. 32 Indianapolis, Ind.

RAUCH & LANG ELECTRICS

are 12 months in the year cars. No water to freeze in winter. No cranking. No dirt. No noise. No odor. One lever controls the car. So safe and easy to run, they can be operated by woman or child.



The RAUCH & LANG Safety Locking Device and Electric Brake Control make car absolutely safe and prevent tampering or theft

Write for Catalog illustrating and describing our eleven different models, or visit one of the following salesrooms.

The Rauch & Lang Carriage Co

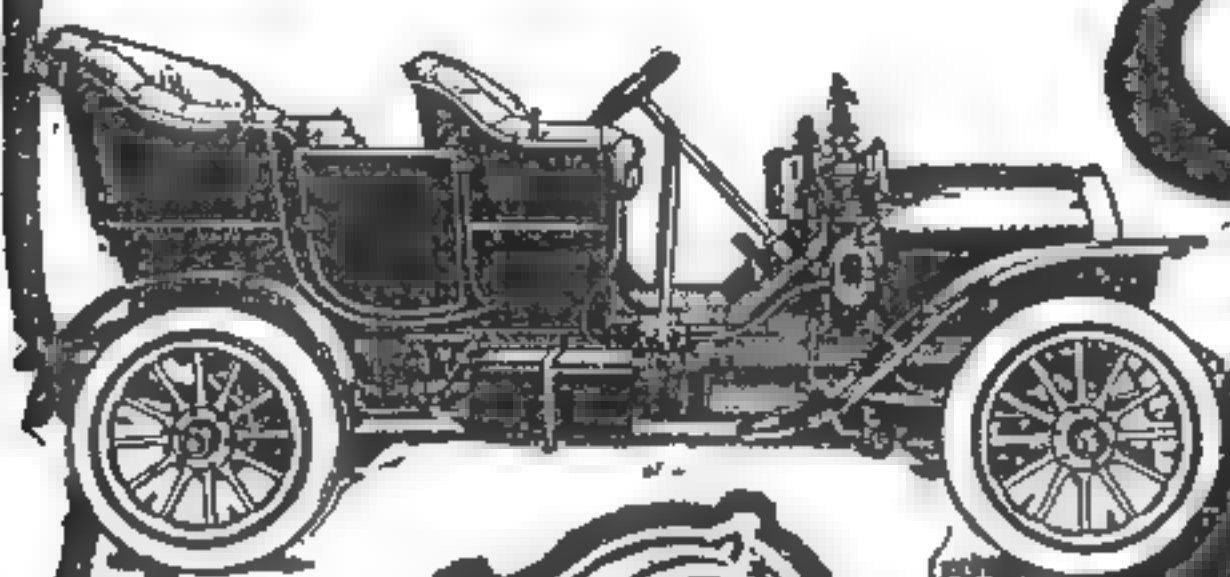
FIFTY-FIVE YEARS' EXPERIENCE BUILDING FINE CARRIAGES
627 Superior Avenue, CLEVELAND, OHIO

SALESROOMS

CHICAGO, ILL., C. P. Kimball & Co., 315 Michigan Ave.
DETROIT, MICH., Wm. F. V. Neumann & Co., 1342 Woodward Ave.
ST. LOUIS, MO., Union Electric Light & Power Co.
TOLEDO, OHIO, Toledo Motor Car Co.
DAVENPORT, IOWA, Mason Carriage Co.
MANCHESTER, N. H., Jas. A. Wellman, Pembroke Building.
ERIE, PA., A. H. Murphy, 918 State St.
OMAHA, NEB., J. J. Deright & Co., 1010 Farnum Ave.
PHILADELPHIA, PA., Bergdoll Motor Car Co.
OKLAHOMA CITY, OKLA., L. L. Van Camp, 614 West Grand Ave.

CINCINNATI, OHIO, Suburban Auto Garage.
DENVER, COLO., Colburn Auto Co., 15th and Colfax Ave.
KANSAS CITY MO., Fletcher Cowherd, Jr., Auto Co.
BALTIMORE, MD., Rice's Garage, North and Madison Ave.
ST. PAUL, MINN., F. W. Ramaley, 650 Grand Ave.
ROCHESTER, N. Y., Arthur McNall, So. Union and Court Sts.
GOSHEN, IND., Teegarden & Putt.
MARIETTA, OHIO, H. B. Coen, 25 St. Clair Building.
SPRINGFIELD, ILL., R. Haas Electric Co., 300 East Monroe St.
ATLANTA, GA., M. Rich.

Reliable dealers wanted to represent us in cities where we have no agents.

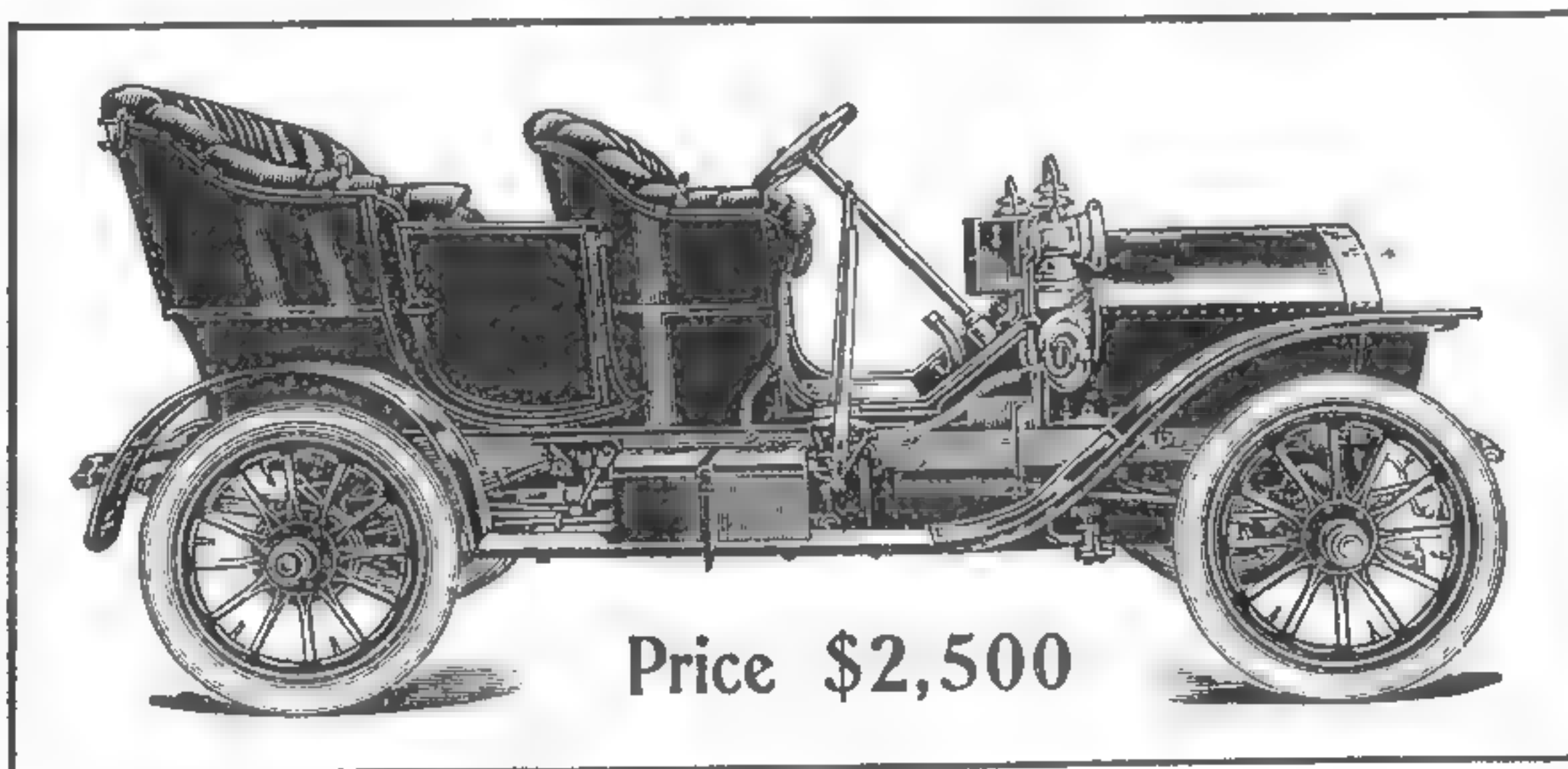


Knox

A Thousand Dollars

more than the Knox price will not buy a motor car of greater all round ability than is possessed by the Model "H" Knox Waterless. It is built for touring, and will do more of the day's driving on the high gear than any other car in its class. The lubrication is automatic—and positive; the cooling is perfect—without the plumbing troubles; the gearset is simple, of the selective type, with three forward speeds and a reverse; the engine, four cylinders, of thirty road horsepower, will take you anywhere you want to go as fast as you dare drive. The Model "H"

Knox Waterless



Price \$2,500

has few equals and no superiors in its class. Any Knox representative will prove it. Let us send you the address of the nearest representative; they are the representative dealers in their community. Our illustrated catalogue is *yours upon request*.

KNOX AUTOMOBILE COMPANY

Member Association Licensed Automobile Manufacturers
SPRINGFIELD, MASS.



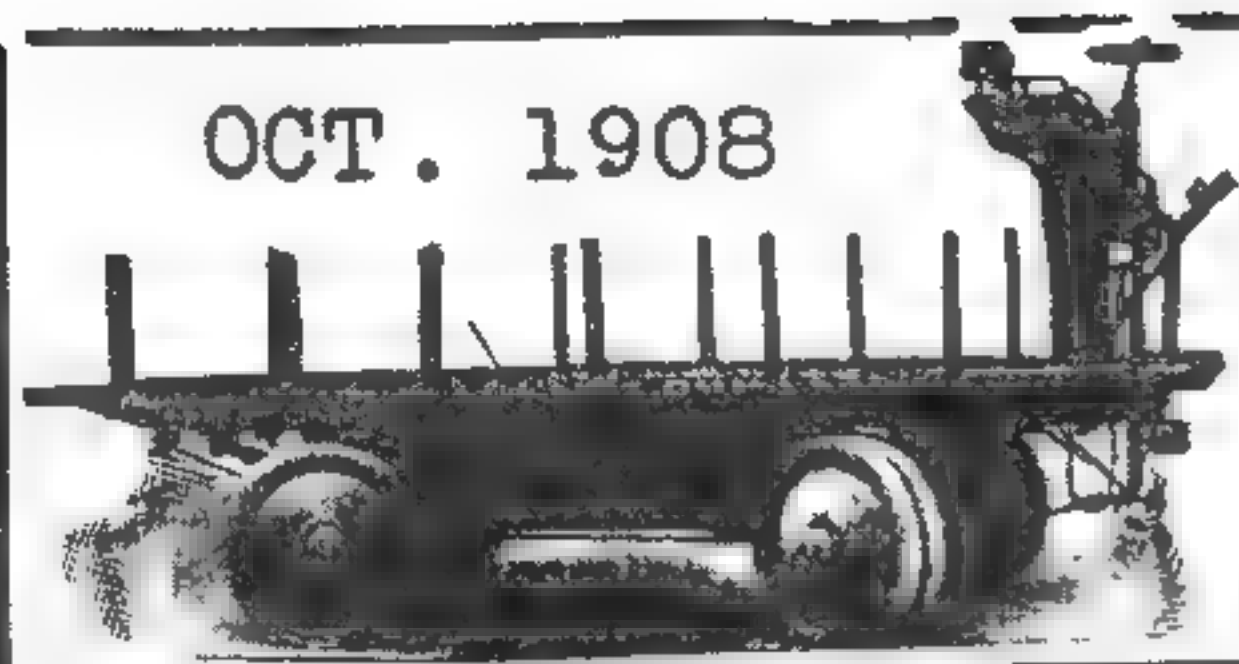
1904 STEVENS-DURYEA DOUBLE CYLINDER

It Starts from the Seat

Double cylinder, seven horse power, water cooled, horizontal motor under seat; three speeds and reverse; tubular frame and full elliptic springs; twenty-eight inch artillery wheels and three inch tires; wheelbase, sixty-nine inches; tread, fifty-four inches; gasoline capacity, six gallons; water, five gallons; When car is only used for short trips it will go a month without refilling. During winter the water can be chemically charged to prevent freezing. All carriages are supplied with fenders made up from special grain leathers. Side lights are in brass and furnished without extra cost. Rubber boots or a Storm Apron, kit of tools and odometer, brass horn and boot underneath, protecting the machinery from the mud. Weight 1,300 pounds; seats two or four persons; price \$1,300. Manufactured by J. Stevens Arms and Tool Co., Chicopee Falls, Mass.

NOTE: Over 2200 different makes of cars were manufactured in the United States since the inception of the automotive industry. Naturally, we can illustrate only a few. More will be shown in future editions of the Motor Scrapbook.

OCT. 1908



The 4-wheel drive that never stalls

Write for Catalogue. Live Agents Wanted.

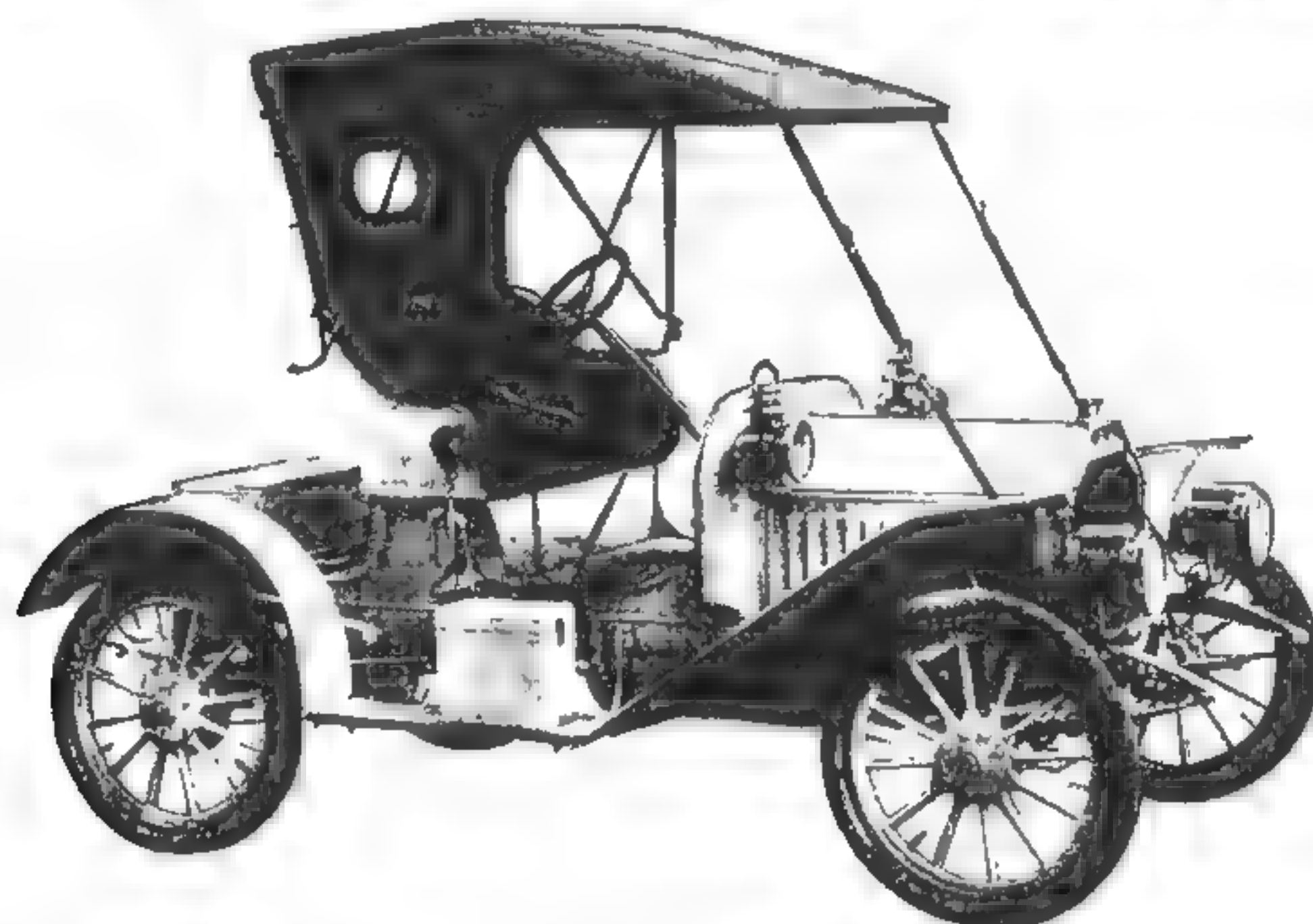
Couple-Gear Freight-Wheel Co.

560 BUCHANAN ST., GRAND RAPIDS, MICH.

ATTENTION,

Owners of the

Buick Model X Runabout



1908

As the result of several months' careful experimenting with the Buick Model X Runabout, we now offer for immediate delivery a special type of

VENTURI TUBE CARBURETOR

With which we Guarantee the Following Results:

- Will start the motor on the first turn of the crank.
- Will give a speed of from 5 to 50 miles per hour in high gear.
- Will give instant acceleration without skipping or "choking."

Price of Special Buick

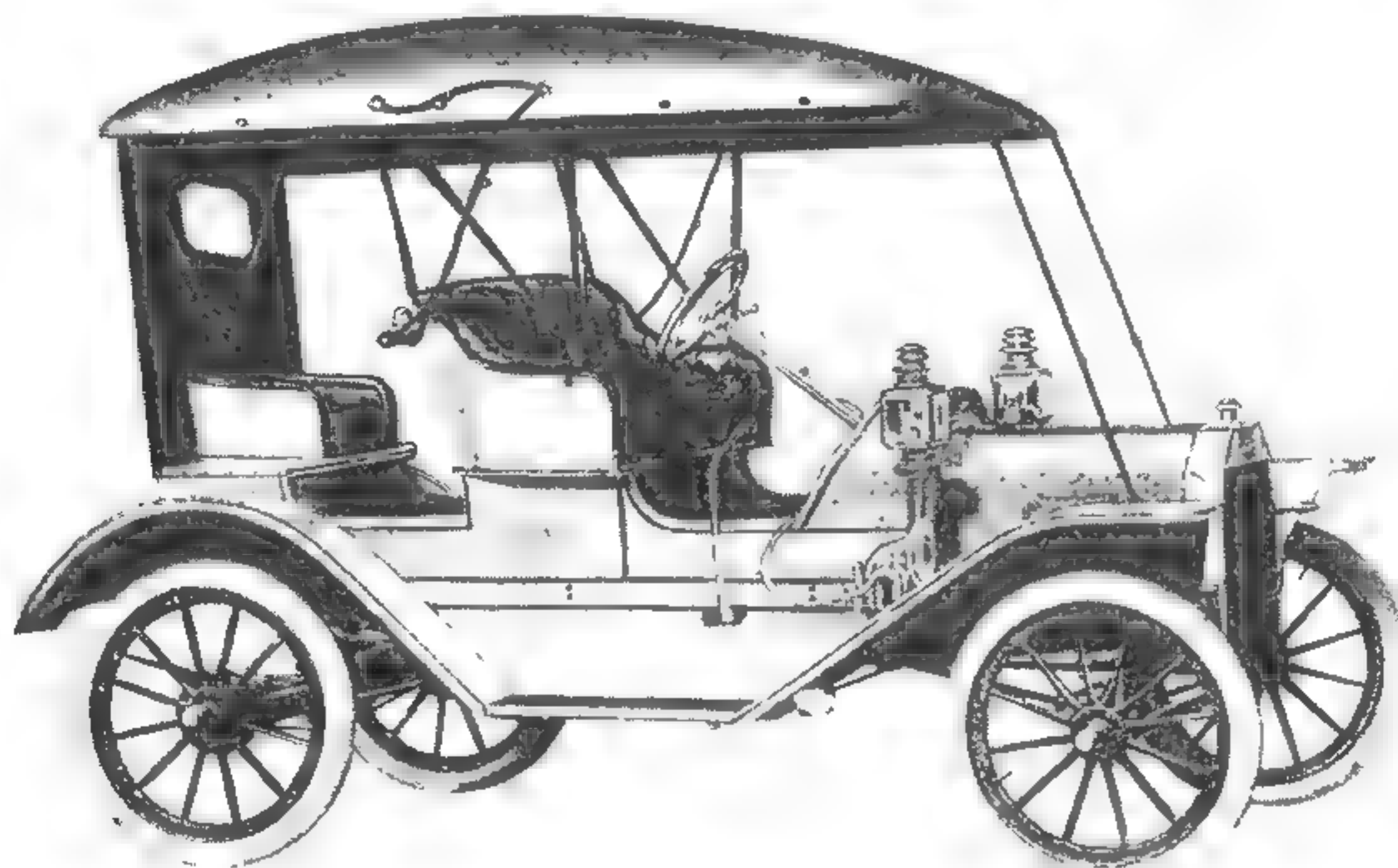
"X" Carburetor, \$8.50

Sold on condition that if it is not entirely satisfactory after a thirty days' trial it may be returned and money refunded.

HOLLEY BROTHERS CO., Detroit, Mich.

NEWTON "RUMBLE" TOP

(Clashes Down Same as a Regular 3-bow Top)



For Ford S Roadster or Model 10 Buick

W. H. NEWTON & SON

123 Elm Street :: :: CORTLAND, N. Y.

ESTABLISHED 1840

DIETZ "Sterling"

Square Lamps (KEROSENE)

THE ORIGINAL



NONE "JUST AS GOOD"



¶ We call attention to the handsome design of our Square Lamps, their heavy construction and fine finish. ¶ Unlike some other makes of Square Lamps, they embody the only proper method of air circulation (DIETZ "Cold Blast" construction), whereby the light is at all times supplied with an abundance of fresh air.

NEW PRICES

	POLISHED BRASS PER PAIR
Dietz "Sterling," 14½" high.....	\$15.00
" " "Sterling Junior," 13" high	12.00

LIBERAL DISCOUNT TO DEALERS

R. E. DIETZ COMPANY

60 LAIGHT STREET - - NEW YORK

Pioneers and Leaders.

Send for Our Large Motor Lamp Catalogue

OCT. 1908



"New York-to-Paris Race Impossible Without Weed Chains"

August 21, 1908.

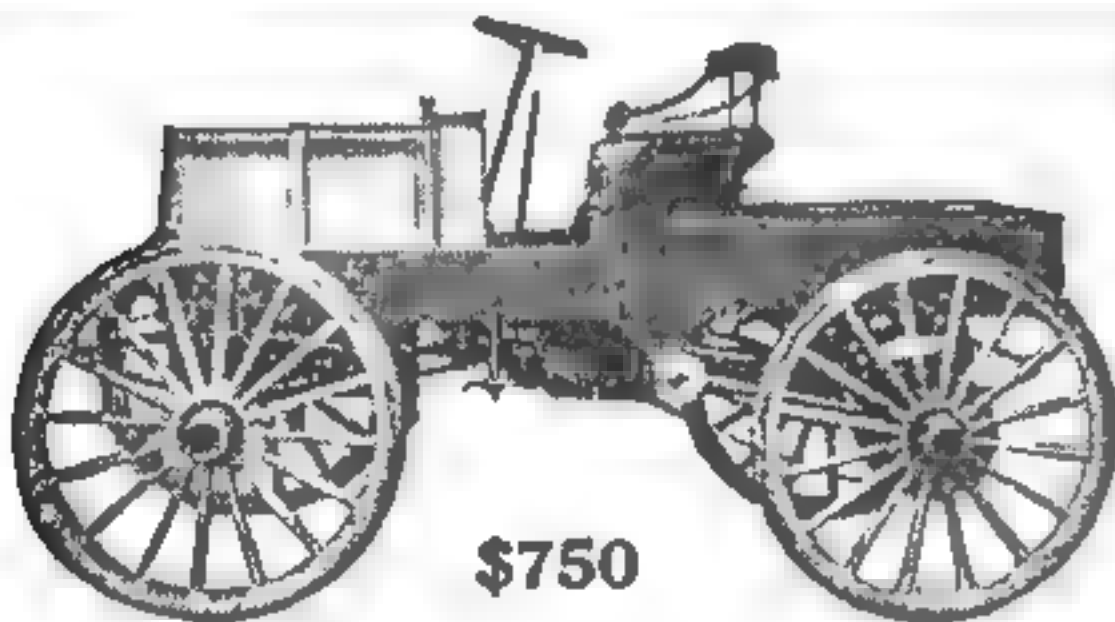
Weed Chain Tire Grip Company,

Gentlemen:—The road conditions in the New York-to-Paris Race made travel an impossible task without the use of Weed Chains on our tires. We struck snow, ice, mud, slush---everything. In some places we would not have made two miles a month without chains. In fact I do not believe our winning Thomas, or any other car would ever have seen Paris if it had not been for your equipment. Outside of preventing lost traction, they saved us time and again from accident---and possible destruction."

George Schuster

WEED CHAIN TIRE GRIP COMPANY

33 MOORE STREET, NEW YORK



\$750

Chase
Business
Runabout

Carries 4 "people" or 700 lbs. of merchandise. Two cylinder, two cycle, air cooled, 10 H.P. motor. Write for Catalogue.

Chase Motor Truck Co.
SYRACUSE - - - N. Y.

Van Motor Wagons

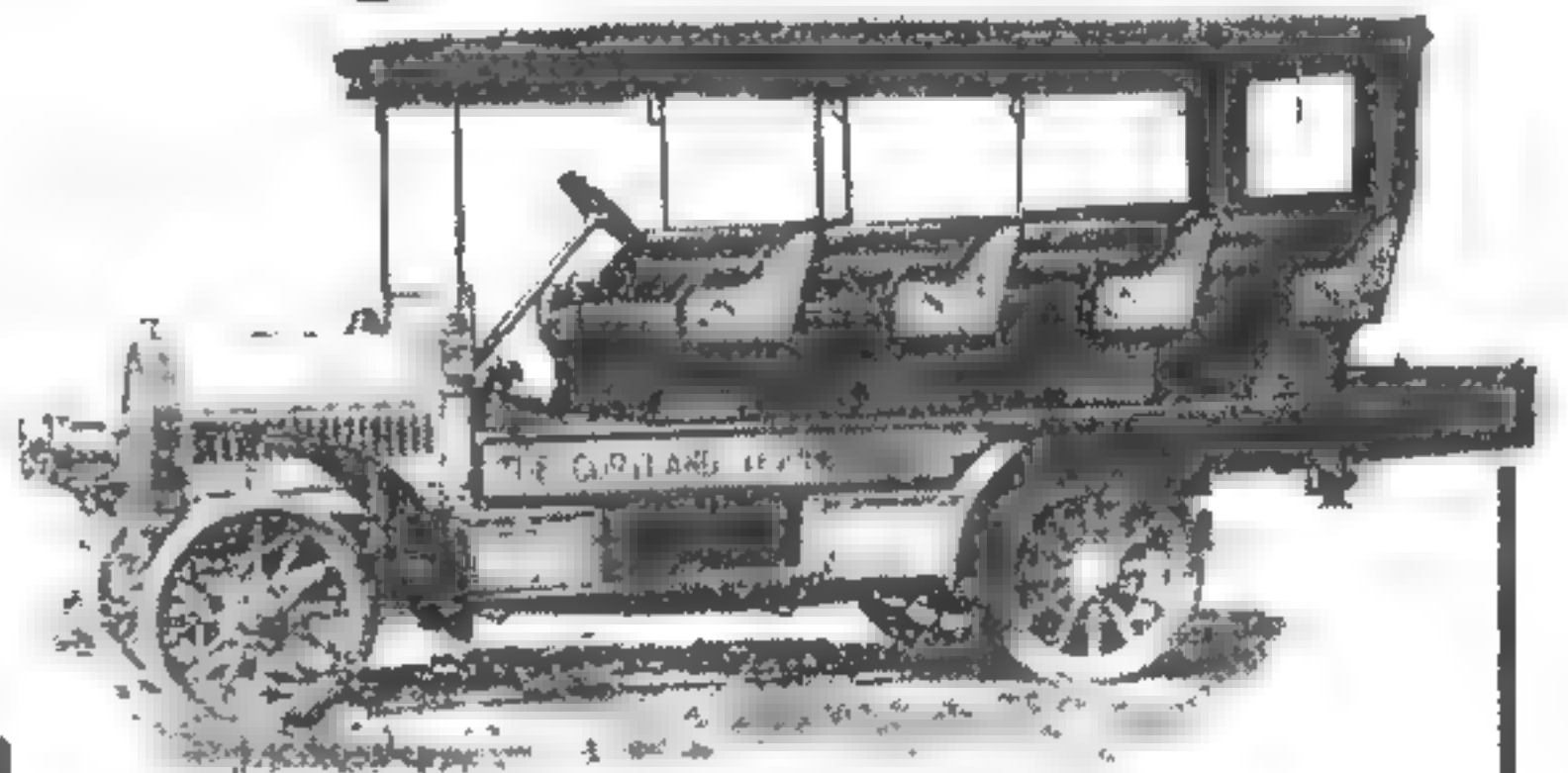
Our output sold for several months ahead. Orders accepted for delivery in 4 months only.

H. F. VAN WAMBEKE & SONS
Elgin, Illinois

100 MANUFACTURERS
Using and Testing
INDESTRUCTIBLE STEEL WHEELS
O. K. them in every way.
Write us for information.
Indestructible Steel Wheel Company
1221 Michigan Ave. 4274 Chicago

The
Friction Driven

Plymouth Cars
WITH GASOLINE
MOTIVE POWER

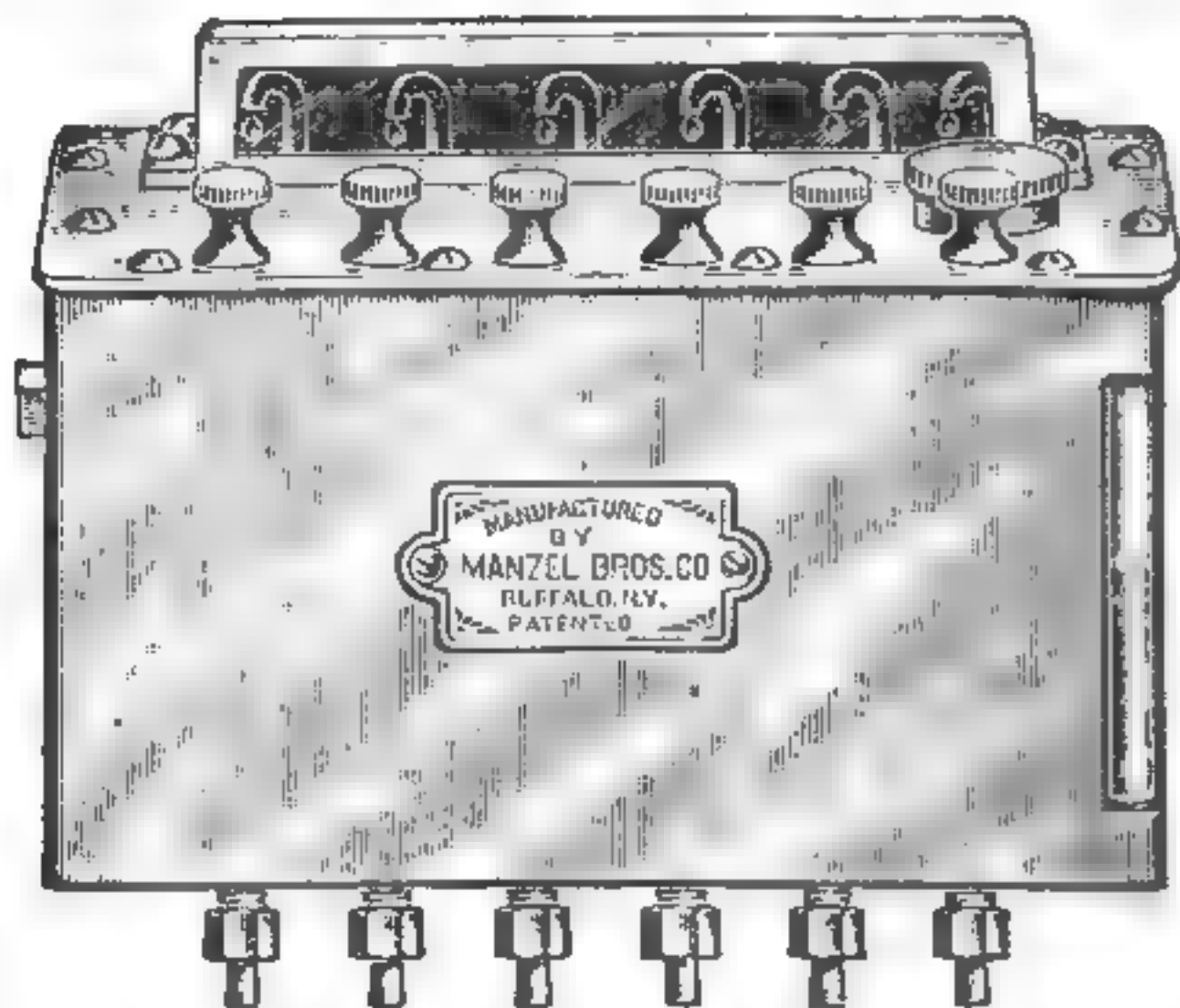


Model G., 50 H.P.

Commercial Trucks from 1000 to 6000 lbs. capacity. Observation Cars from 9 to 20 passengers, fitted with high motive power and our Double Friction Transmission, direct independent chain drive to each rear wheel, no differential gear being required. The most simple, efficient and durable car on the market.

We solicit your correspondence and invite inspection, believing that a comparative examination is the quickest way to convince the prospective purchaser of the many advantages to be found in the PLYMOUTH CAR.

THE COMMERCIAL MOTOR TRUCK CO.
Plymouth, Ohio

MANZEL**FORCE FEED OILERS**

For lubricating the cylinders and bearings of all kinds of Gas and Gasoline Engines.

Feed always in sight.
Each feed regulated independently.
Easily regulated.
Positive.
Any number of feeds.
Rotary or Ratchet Drive.

WRITE FOR FULL PARTICULARS

MANZEL BROTHERS CO.

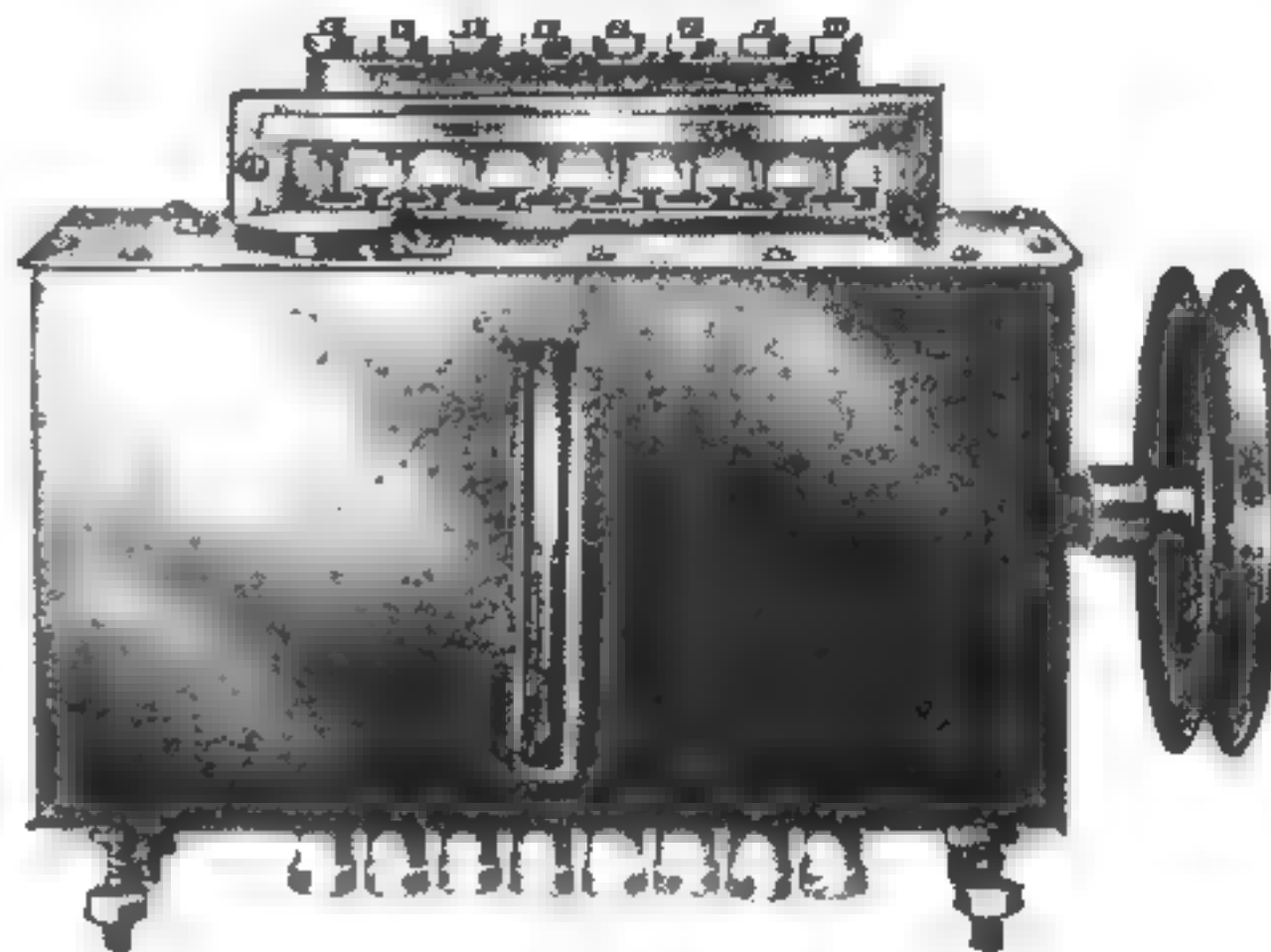
320 Babcock St., Buffalo, N. Y., U. S. A.

The "Sherwood"

FORCE SIGHT FEED OIL PUMP

MODEL E

Bottom or Side Supports



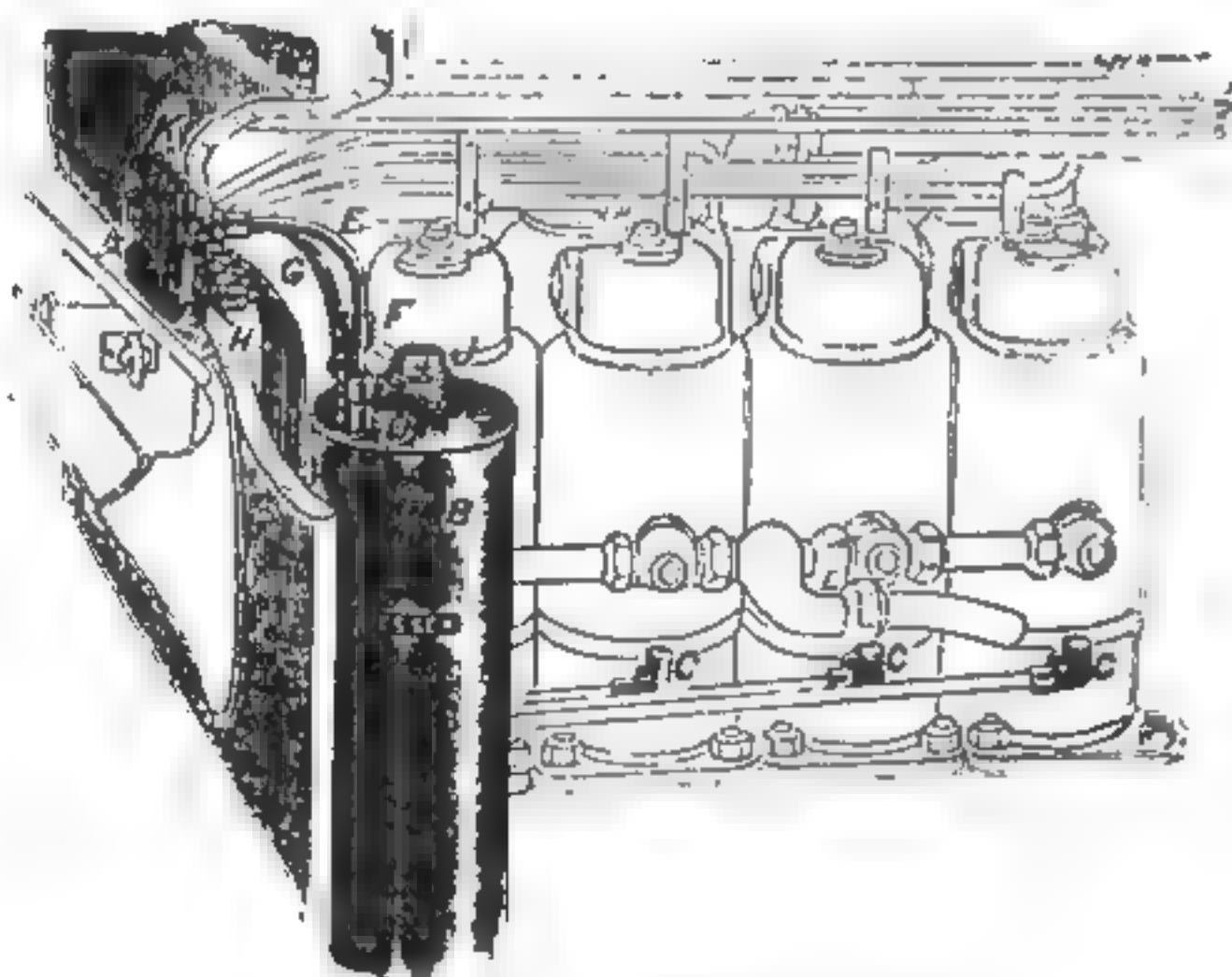
Pulley or Direct Shaft Drive

Gives Positive and Uniform Feed

RELIABLE and ECONOMICAL. Made of any capacity and number of feeds required. Manufactured by

SHERWOOD MANUFACTURING CO.
Buffalo, New York

Catalogue and Prices Furnished on Application

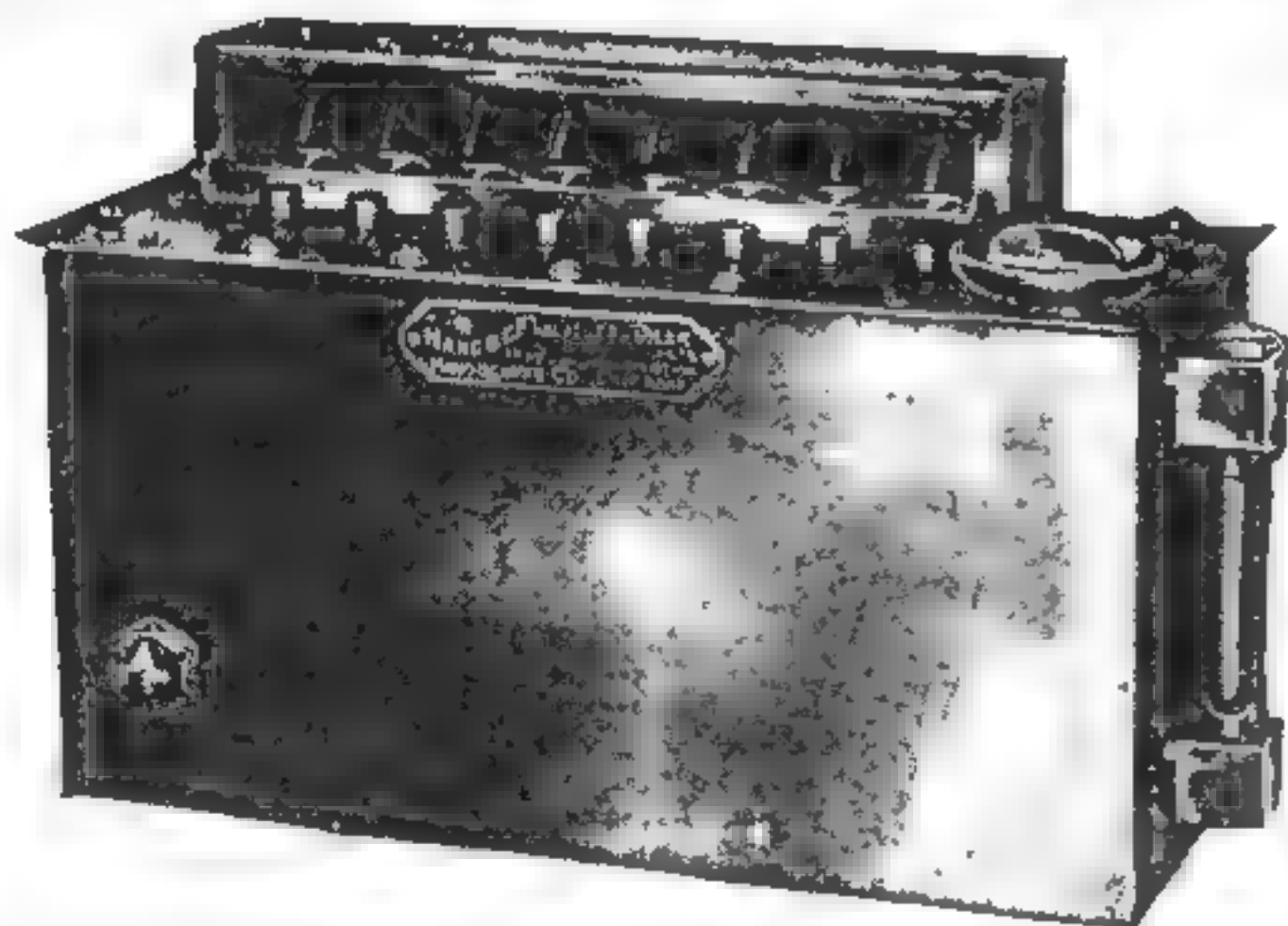


Essex Improved

Automatic

Lubrication is the only successful method of lubricating Automobiles. Always ready and never gets out of order. 50,000 in use.

G. B. ESSEX BRASS CO.
DETROIT, MICH.



THE INCREASE IN THE NUMBER OF Automobile Manufacturers that are using the

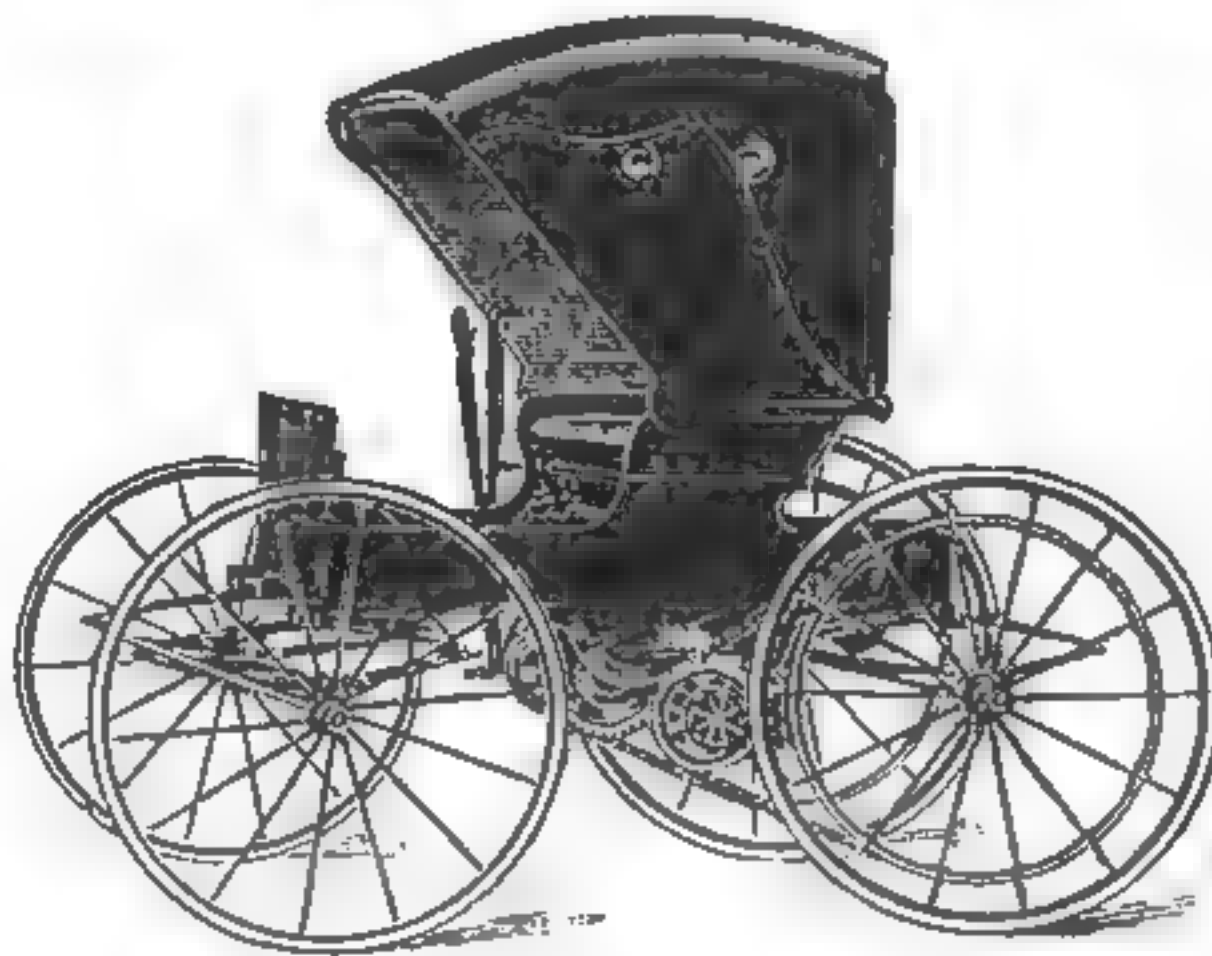
Hancock Oiler

on their 1909 Models is very noticeable. It can only mean that they consider the HANCOCK far superior to others.---And it is.

Hancock Mfg. Co., 776 E. Henry St., Charlotte, Mich.

1902 1908
OLDEST MOTOR-BUGGY MAKERS IN AMERICA
HOLSMAN

High
 Wheels
 Travel
 all Roads
 Because



All Roads
 Are made
 To be
 Traveled
 By High
 Wheels

NEW MODEL \$550.00

Here is a High Grade Motor Carriage at a most unusual price, made by the oldest, largest and most practical manufacturers of carriage automobiles in the world embodying the results of all their years of experience in building this type of automobile exclusively.

WINNER IN ALGONQUIN HILL CLIMB
 FIRST AND SECOND PLACES—MOTOR BUGGY CLASS
Greatest Hill Climbing Event in America

A Splendid Agency Proposition

This new Model makes our range of prices complete and puts our machine within the reach of every buyer, no matter what his circumstances. For this reason our line is now more attractive than ever to agents, and we would urge you to take up the matter of territory with us at once in order to get your application in before contracts expiring this Fall are renewed for next year.

Every Part of Every Machine Guaranteed

The well-known Holsman standard of quality has been maintained in this model—as we are too jealous of our reputation to offer an inferior article to the public at any price. The same motor is used as in our higher priced machines, and in many other ways it is identical with them. In order to put the price within the reach of the masses, however, we have modified the lines and simplified the construction and equipment a little. This new model contains the same high grade forgings, castings, seamless steel tubing, etc., used in all our models. It is equipped with solid rubber tires, and is all ready for the road.

SEND FOR CATALOGUE.

Holsman Automobile Company
 Room 224, Monadnock Block :: Chicago, Ill.

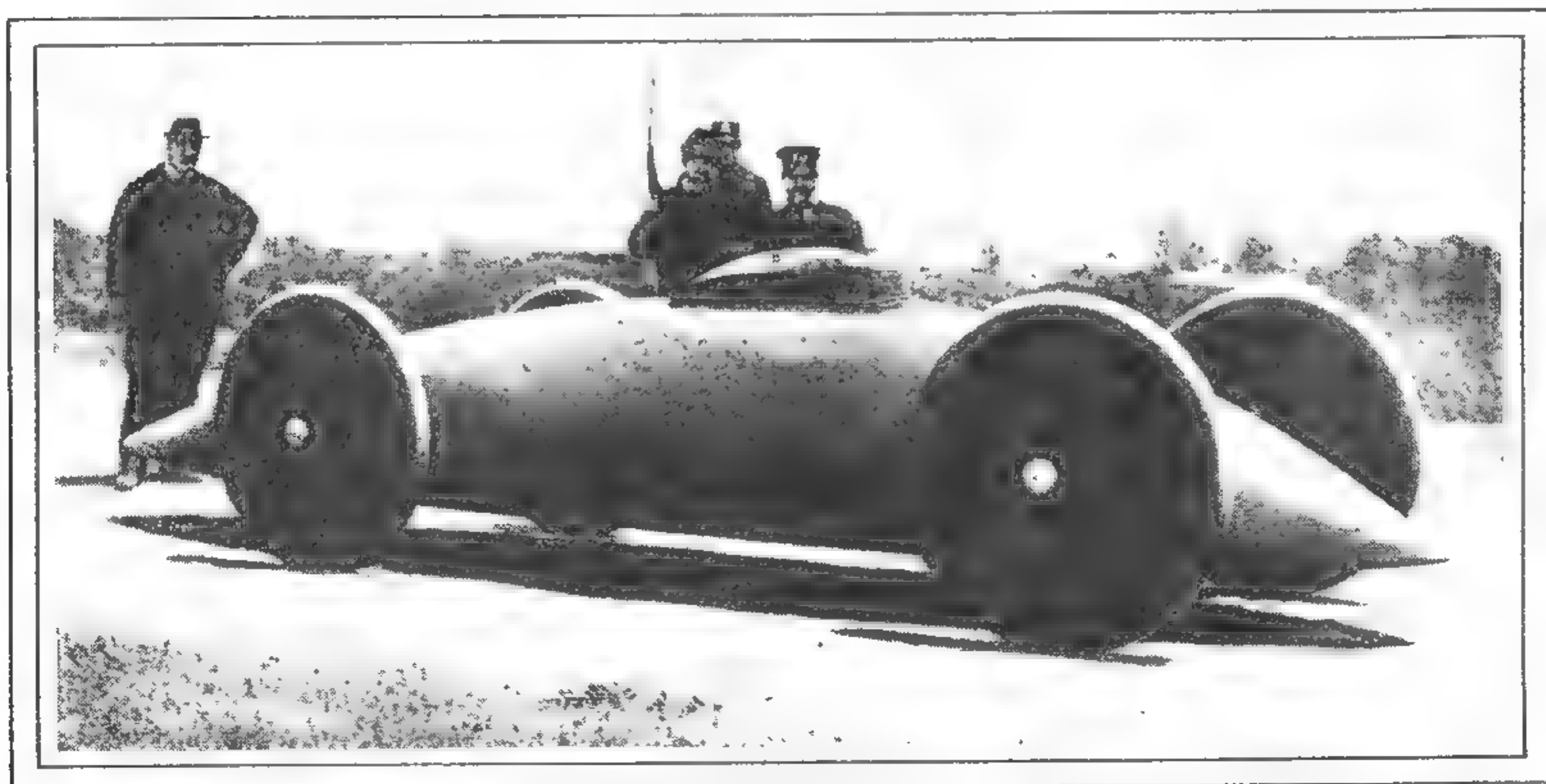


A "VOITURE DE COURSE," OR LIGHT AUTOMOBILE FOR RACING AND TOURING.

From a photograph by Barenne, Paris.

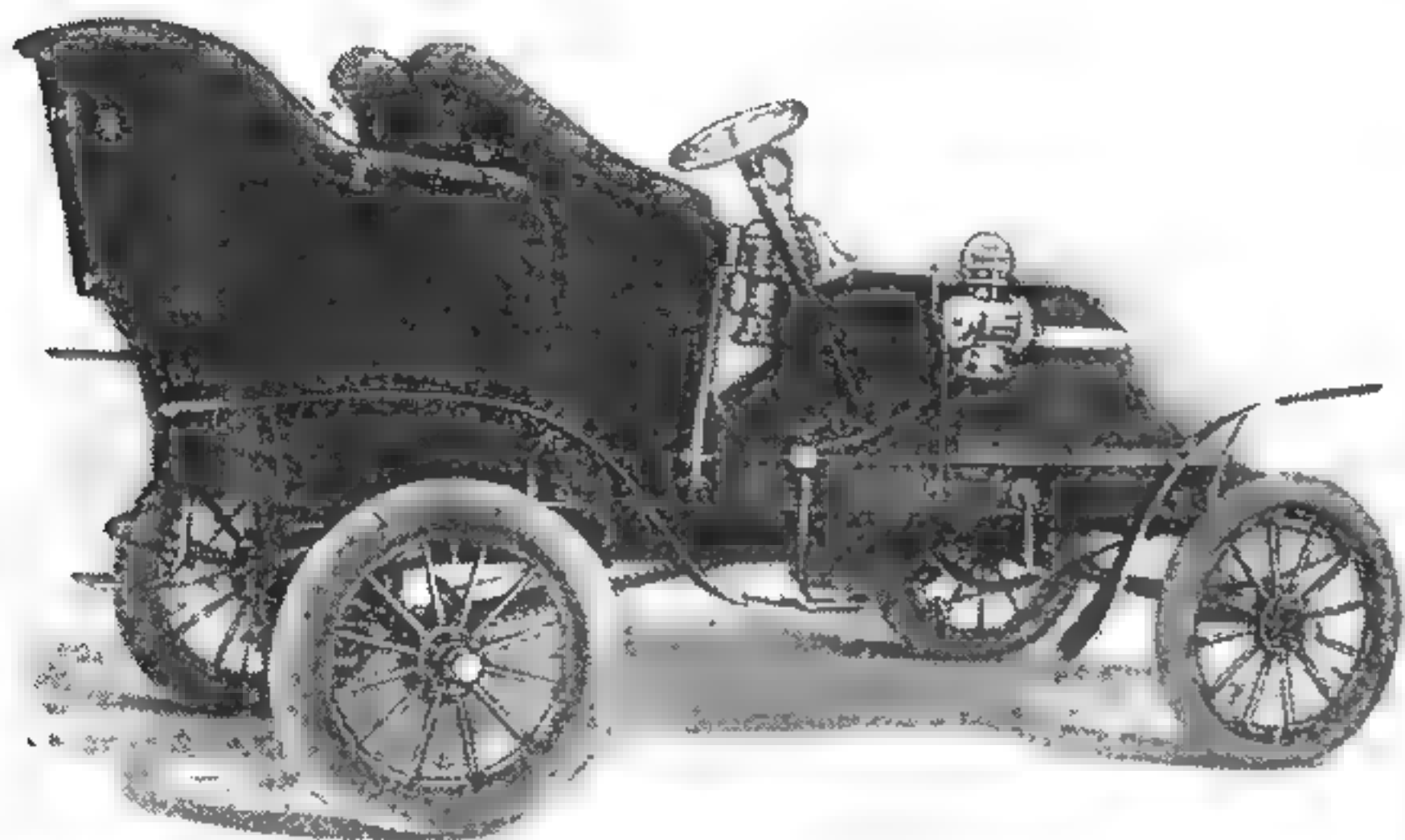
1904

MUNSEY'S MAGAZINE.



A FREAK RACING AUTOMOBILE—THE BAKER ELECTRIC "TORPEDO," WHICH CAUSED A SERIOUS ACCIDENT AT THE SPEED TRIALS HELD ON STATEN ISLAND LAST SUMMER, WHEN IT RAN AMUCK AMONG THE SPECTATORS.

From a photograph by O'Neil & Langley, New York.



The Franklin Light Tonneau

Weight, 1250 pounds;
12 horse-power, four-cylinder,
air-cooled motor, \$1650.

FRANKLIN

The car you want is not the car with the most horse-power, or with this frill or that, but the car that *does the most at the least expense.*

The car you don't want is the complicated, heavy car that wears out tires fast, uses gasoline extravagantly, costs a lot for repairs, and is clumsy besides.

The Franklin 12 horse-power Light Tonneau goes faster and better and smoother—on all roads—than most cars of 18 and 20 horse-power. It costs less to buy and less to maintain.

Water-cooled cars get their power by means of heavy motors and complicated parts. The Franklin gets its power by masterly engineering and its light.

Four-cylinder, Air-cooled Motor

It costs \$1650, not \$2000; but, even at \$2,000, it would be cheaper than the others.

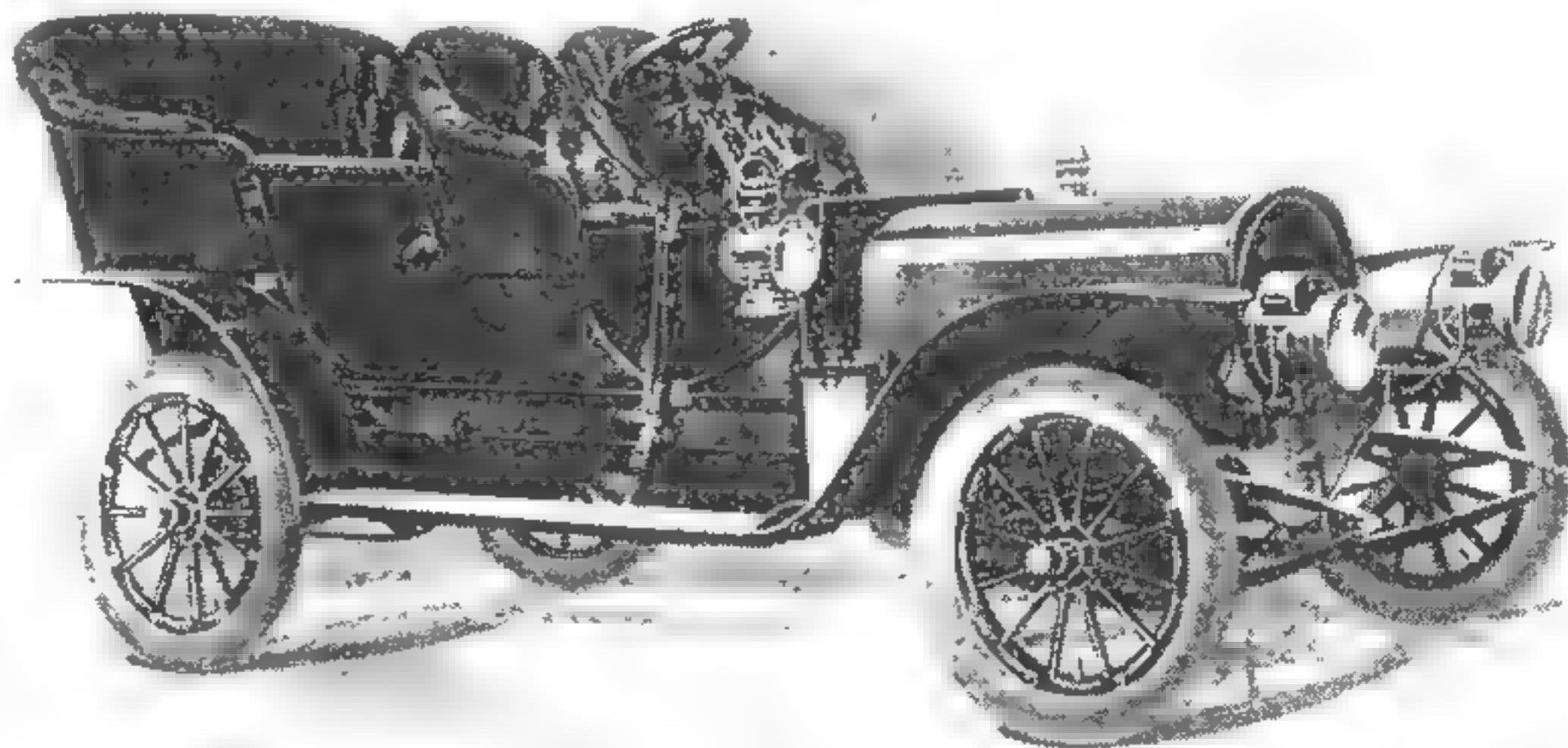
What does your horse-power cost? What does it do?

While you're thinking this over, look up the Franklin and some Franklin owners.

The picture below is the *Franklin 20 H. P. Touring-car.*

Send for book telling plain facts about the six 1905 *Franklins.*

Send for "Coast to Coast" Booklet, story of the Franklin's record from San Francisco to New York.



**H. H.
Franklin
Mfg. Co.
Syracuse, N. Y.**

*Member Association
Licensed Automobile Manufacturers*

The 1909 White Steam Cars

As in 1907 and 1908, the White Steam Cars built by the White Co., Cleveland, Ohio, for 1909 will be built in two distinct models which, while differing from each other widely in power, in size and in price, resemble each other in their general lines of construction. The horse-power ratings of the two models are based on the actual power delivered at the rear wheels, not merely on formulas nor on the power delivered at the engine.

The larger of the new White cars will be known as the Model "M" and will be the successor of the Model "K" of the present season. The Model "M" is rated at 40 horse power and sells for \$4,000, f. o. b. Cleveland, equipped with acetylene headlights and tank, oil lamps, horn and tool kit. The wheel base is 122 inches; the front tires 36 x 4 inches and the rear tires

The wheel base is 104 inches and the tires, both front and rear, are 32 x 3½ inches. The car is regularly fitted with a straight-line five-passenger body. The engine, except as regards size, is identical with that in the Model "M." The high pressure cylinder is 2½ inch bore, and the low pressure cylinder is 4¼ inch bore; the stroke is three inches. The frame is heat-treated pressed steel. The front axle is a one-piece forging of I section. The front springs are 37 inches long and 1¾ inches wide; the rear springs are 45 inches long and 1¾ inches wide. Both the foot brake and the hand brake act on drums on the rear wheels, the former being of the expanding type and the latter of the contracting type. As in the Model "M," the water tank is placed under the foot boards and the fuel tank is in the rear.

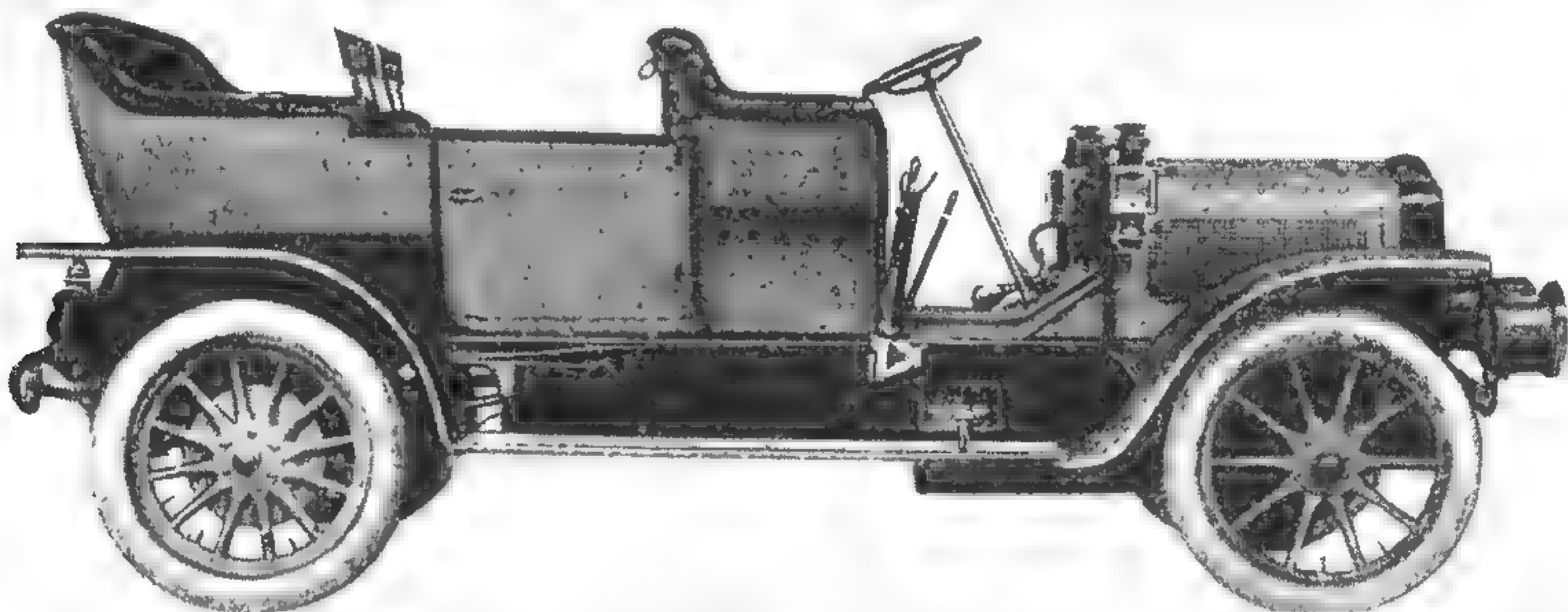


Fig. 1. 1909 White Steamer Model "M." The engine is considerably changed from 1908 as detailed in the text and develops 40 H. P. The high pressure cylinder is 3½-inch bore and the low 6-inch, the stroke is 4½ inches. The smaller car, Model "O" is very similar except for size. The engine is rated as 20 H. P., the high pressure cylinder being 2½ and the low pressure 4¼ inches bore with 3 inches stroke. The small car frame is pressed steel, heat treated and the large car is of armoured wood. The fuel tanks in both are at the rear.

36 x 5 inches. The car is regularly fitted with a straight-line, seven-passenger body. The engine is compound, of new design, described in full below. The high pressure cylinder is 3½ inch bore; the low pressure cylinder 6 inch bore, and the stroke 4½ inches. The frame is of armored wood, the reinforcing plates of nickel steel being fastened on both sides of the wooden sills. The front axle is of the tubular type; the front springs are 44 inches long and 2½ inches wide; the rear spring 55 inches long and 2½ inches wide. Both the foot brake and the hand brake act on drums on the rear wheels, the former being of the expanding type and the latter of the contracting type.

The smaller of the new White cars will be known as the Model "O". This car may be described more appropriately as a smaller edition of the new Model "M," rather than as a successor of any previous model. The Model "O" is rated at 20 horse power and sells for \$2,000, f. o. b. Cleveland, equipped with oil lamps, horn and tool kit.

PRINCIPAL CHANGES.

The principal mechanical change in the new cars, as compared with previous White models, is in the engine. As previously mentioned the engines in the two new models differ only as regards dimensions and, therefore, the following description applies to both models. The new engine construction has been undergoing a thorough trying-out for two years, and both the Model "M" and the Model "O" engine have been subjected to tests of over 30,000 miles of usage and, therefore, may be regarded as thoroughly seasoned products. The change in the engine may be summarized as follows: in the place of one standard type of valve mechanism, another standard type of valve mechanism is used. In former years, the engines used in the White cars were fitted with the Stephenson valve motion, which was actuated by eccentrics on the crank shaft, as were also the pumps. The new White engines are fitted with the Joy valve motion, which is actuated directly from the connecting rods

OCTOBER, 1908

The New Model T Ford Touring Car

The latest sensation in automobile circles is the placing of a 20 H. P. 4-cylinder touring car on the market by the Ford Motor Co., of Detroit, at the very unusual figure of \$850. This new machine is unique in many of its constructions and has an

be capable, a good hill climber and suitable for all-around touring purposes. It is spoken of as a four-passenger touring car, altho there is ample room on the rear seat to accommodate three persons. The body is of the straight line touring car type with

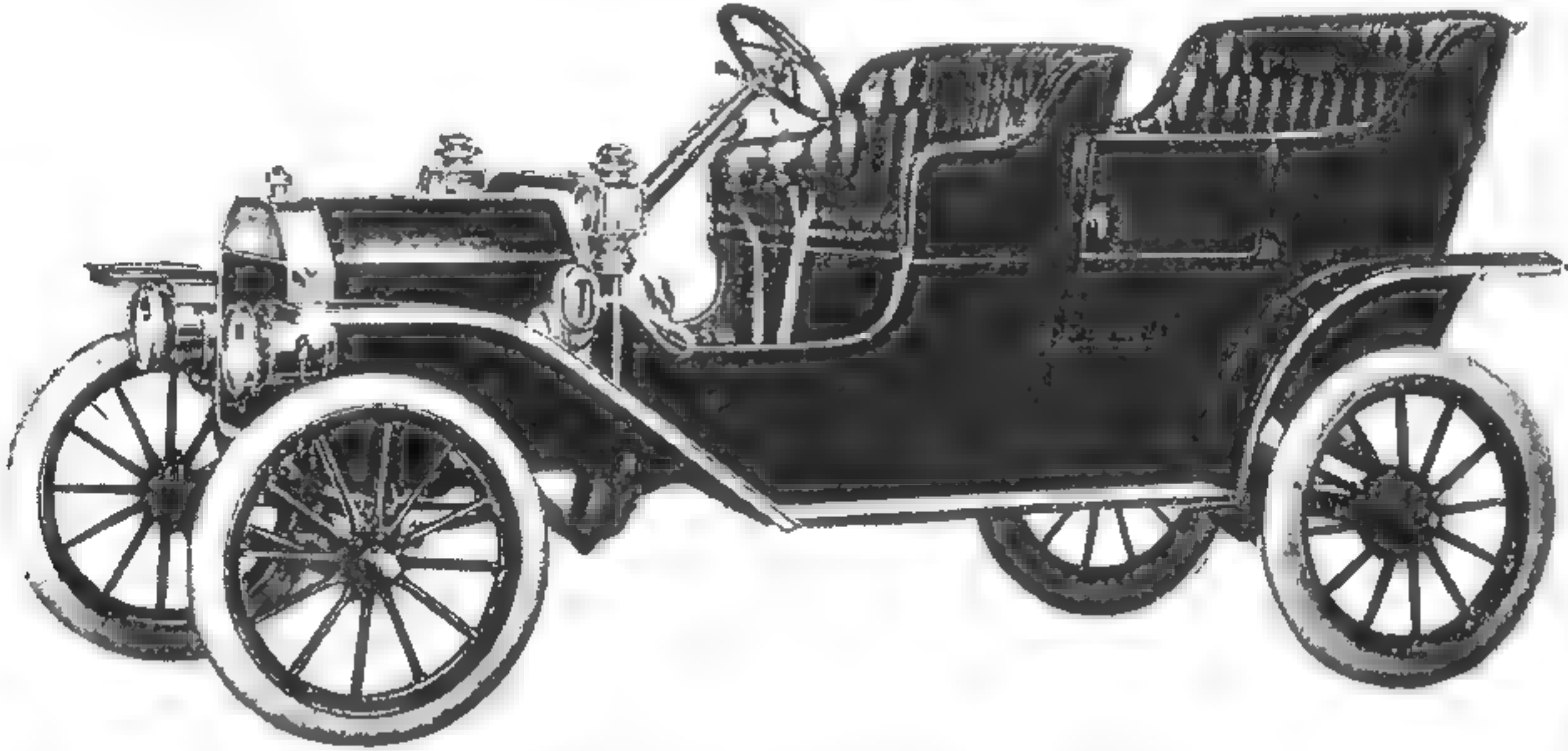


Fig. 1. New Ford Model T Touring Car. This machine contains a 4-cylinder engine, $3\frac{1}{4} \times 4$ inches, 20 H. P., all four cylinders being cast in one piece. Shaft drive is used to the bevel gear rear axle of live type, the casing being of pressed steel autogenously welded. The power plant, including the change speed gear, is included in a single case mounted on three points. The control is at the left, a special and peculiar rear axle construction is used and also an unique magneto arrangement of the Ford design is embodied in the flywheel construction, as described in the text. The price complete is \$850; weight 1200 pounds.

individuality all its own. It is the logical successor of the well-known Ford 4-cylinder runabout, but is different thruout in its construction and contains many new and

side doors opening to the rear, running boards extending the entire length and mud guards of the latest pattern webbed to the frame so that mud from the road cannot

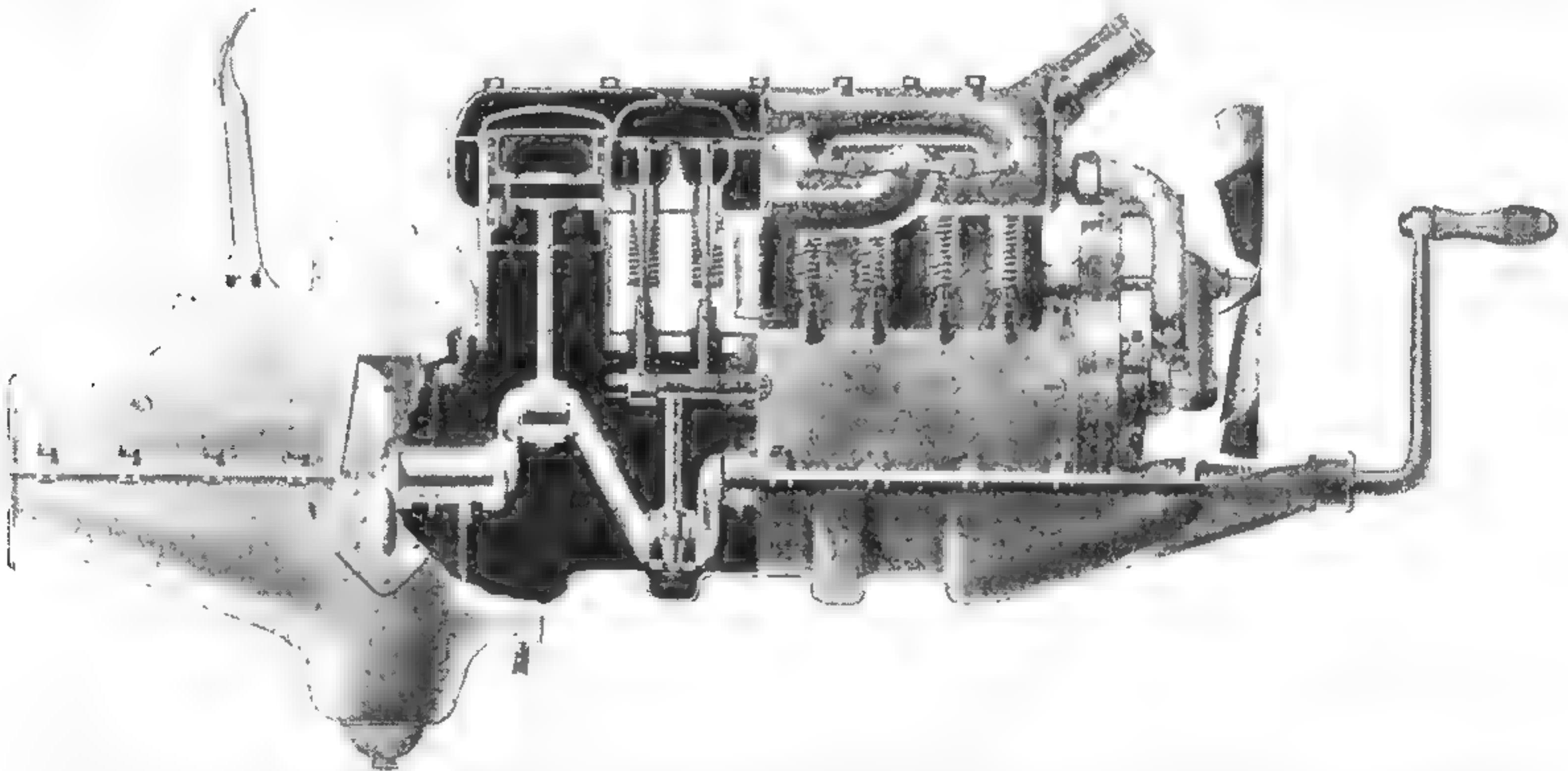


Fig. 2. The Ford Model T 4-cylinder engine. This motor consists of three parts, an oil pan of pressed steel extended at the rear to form the flywheel and transmission housing, a center section consisting of the upper half of the crank case and all four cylinders cast in one piece, even including the two-to-one gear housing and the upper piece which forms the head of all four cylinders and is retained in position by twelve nuts. This power unit is supported at three points. There are many peculiarities of construction, as described in the text.

entirely original Ford features.

In a general way, it may be stated that the car is of light weight, has a very compact power plant, the four-cylinder engine being cast in one piece. Unit power plant construction is used and this plant is mounted on three points, giving flexibility. The first of these models has been on the road undergoing the most severe testing for nearly a year and has shown itself to

possibly reach either the car body or occupants.

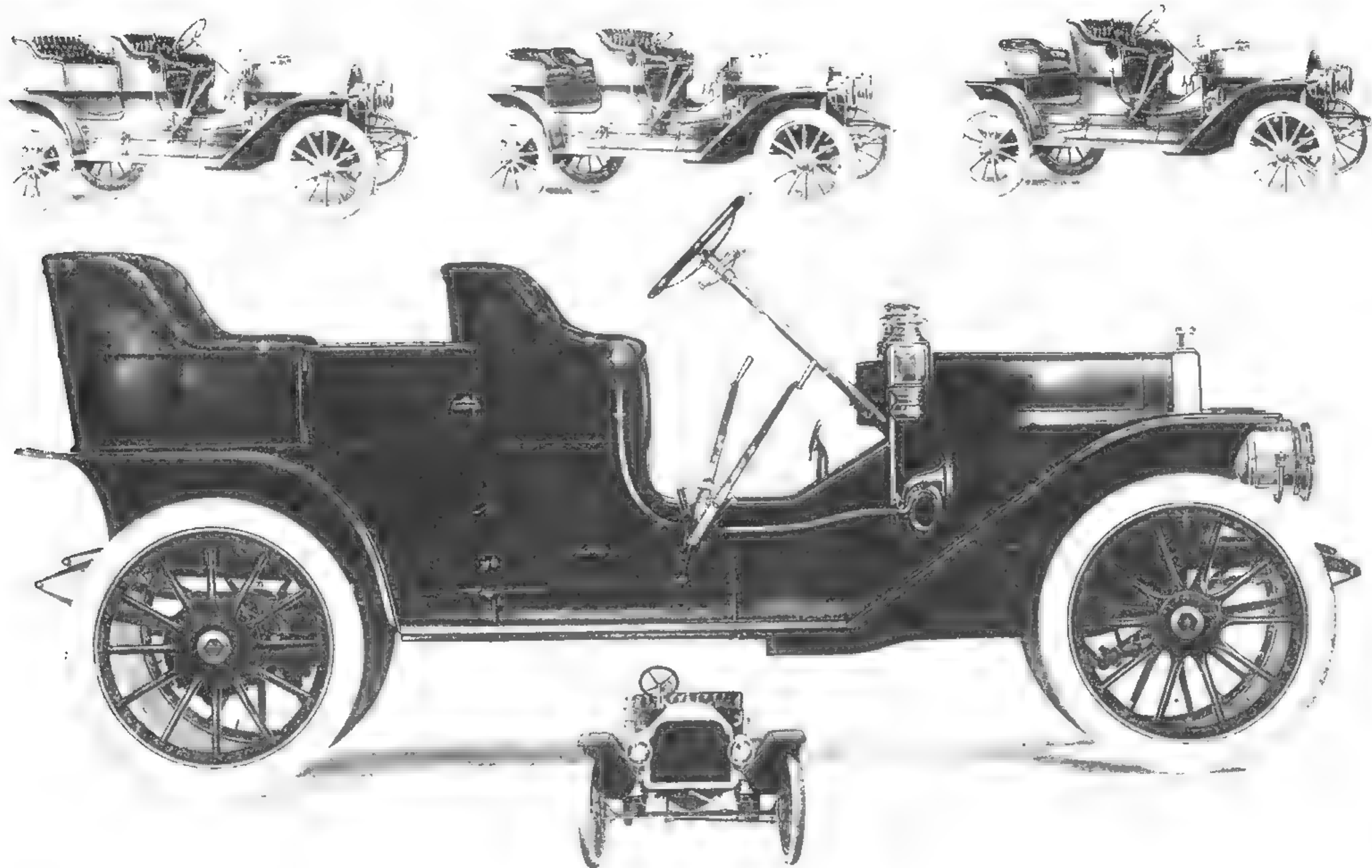
NOTE: The first Model T Ford cars were equipped with two hand levers as shown in this illustration. This was the first model with left hand driver's seat.

Detachable Demi-tonneau

Double Rumble Roadster

Roadster

56



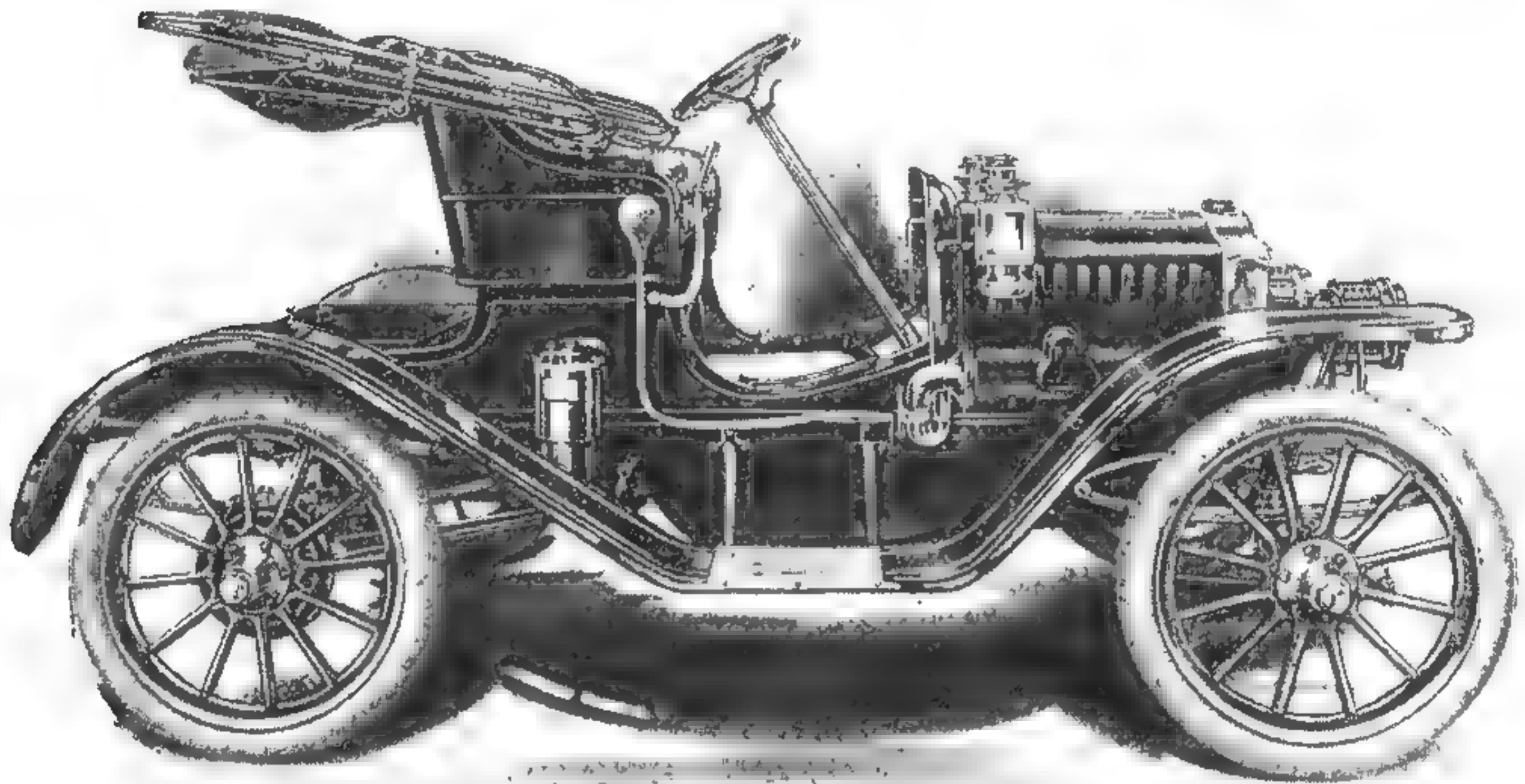
E-M-F. "30" '09 MODEL "A" TOURING CAR

Maxwell Two-Cylinder, 14 H. P. Runabout Model L D

Equipped with top, gas lamps and generator. Wheelbase, 84 inches. Full-elliptic springs in front and rear. Wheels, 30 inches. Tires, 30 x 3½. Enclosed running boards.

Magneto a Part of Equipment

Price, - - - - - \$825



The engine of this powerful and speedy car is the same as in our 1908 runabout. In the new car the wheelbase has been lengthened to 84 inches, and the springs are full-elliptic in front and rear, and of ample length.

Model L D is the ideal motor car for the man who desires to travel inexpensively, either alone or with another passenger, and it recommends itself to the doctor, lawyer, contractor, city and suburban salesman, builder, business man; in fact, to every one whose needs do not exceed economical, safe and speedy transportation for two.

Three-point Suspension—Unit Construction—Thermo-syphon Cooling—
Multiple-disc Clutch—Indestructible Metal Bodies

Maxwell-Briscoe Motor Company

Tarrytown, N. Y.

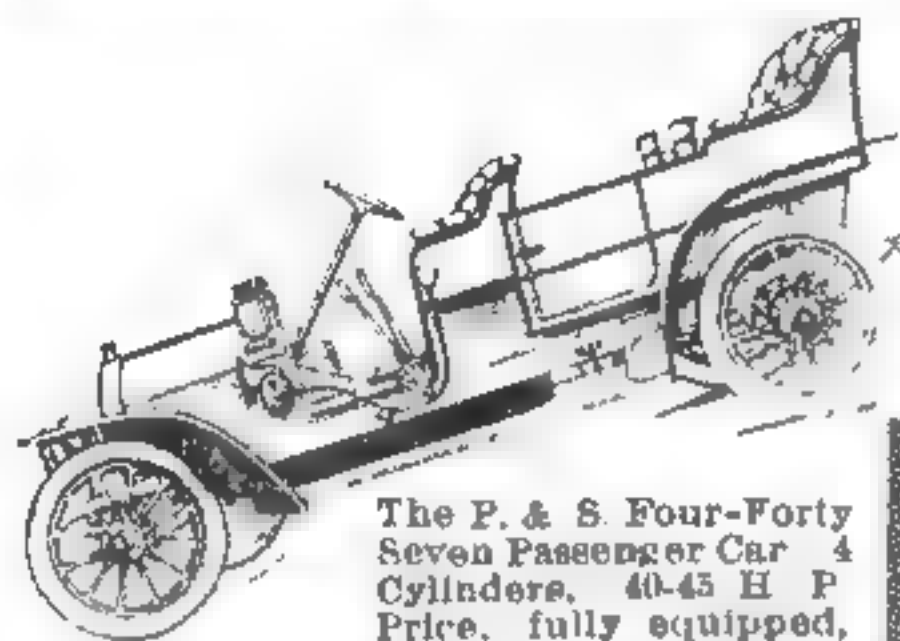
New Castle, Ind.

Pawtucket, R. I.

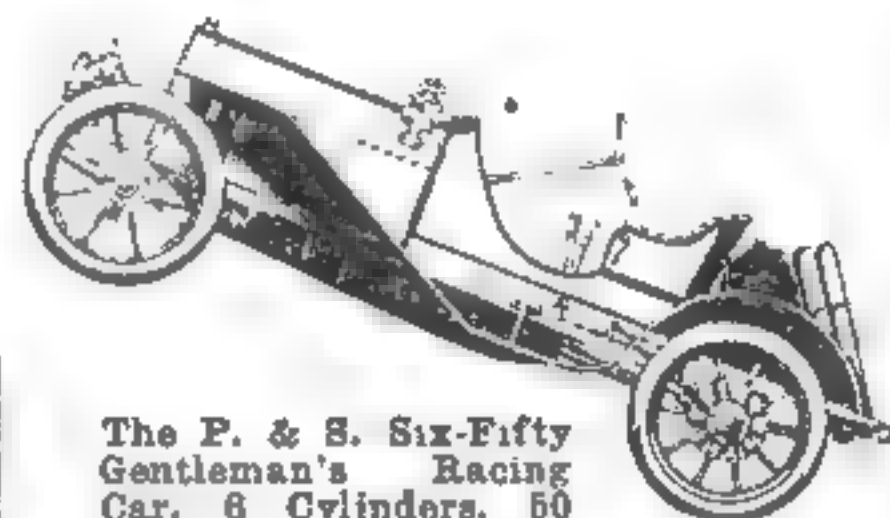
PALMER SINGER



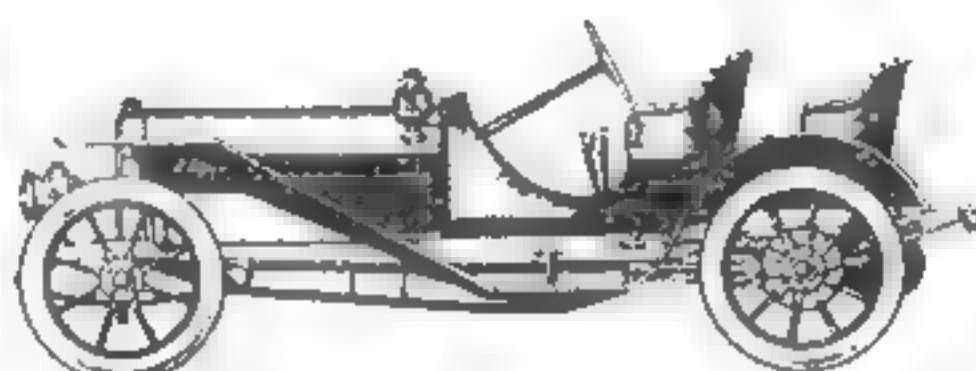
All cars sold by us are licensed under Selden patent and guaranteed for one year.



The P. & S. Four-Forty Seven Passenger Car 4 Cylinders, 40-45 H. P. Price, fully equipped, \$4,000.



The P. & S. Six-Fifty Gentleman's Racing Car. 6 Cylinders, 50 H. P. Price, fully equipped, \$2,450.



The P. & S. Six-Sixty Fast Touring Runabout. 6 Cylinders, 60 H. P. Price, fully equipped, \$2,850.



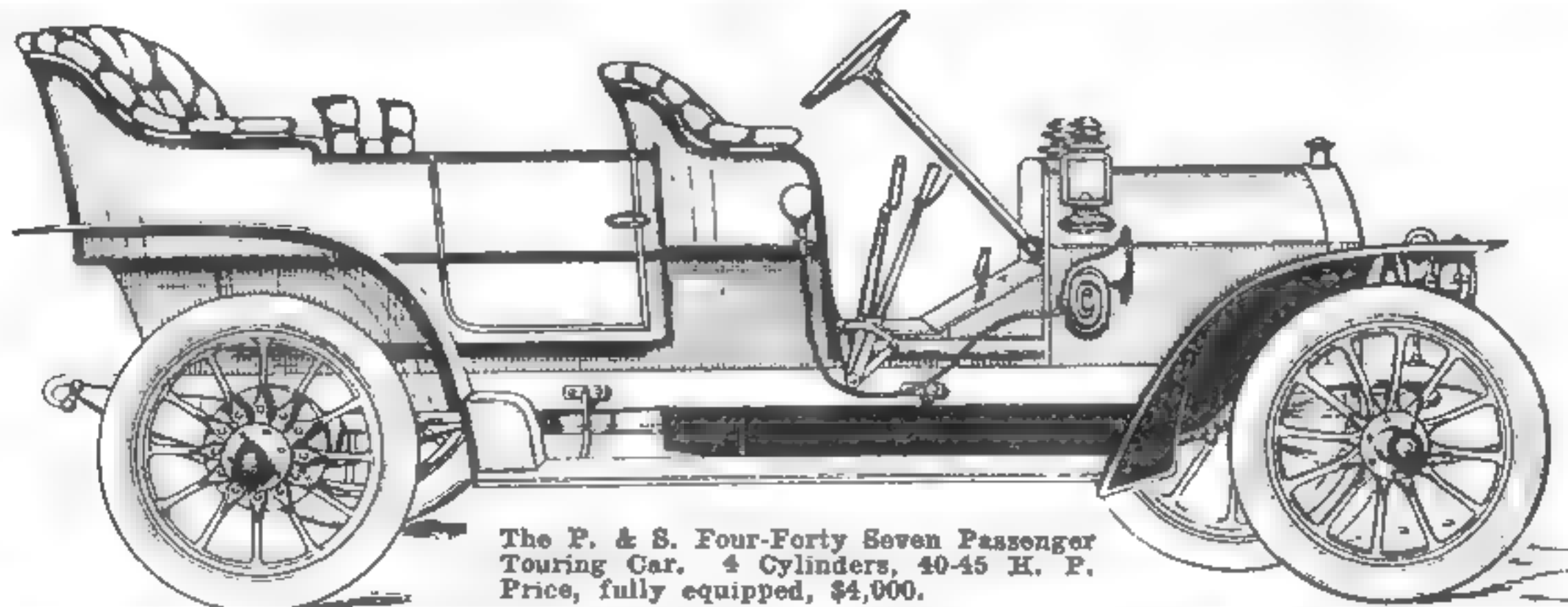
P. & S. Town and Country Car, 28-30 H. P. \$3,000.

Nickel steel is used throughout. Imported F. & S. ball bearings used exclusively. All models equipped with Bosch high tension magnetos. Double and single drop frames of nickel steel. Drop forged I Beam nickel steel front axle. Four speed selective type, sliding gear transmissions with direct drive on third speed.

Multiple disc clutches in all models. All brakes of expanding type, and on rear wheels bolted to "bulge" spokes. All brakes equalized and enclosed in dust-proof cases. Universal joints on all steering connections. All types shaft-driven. All moving parts enclosed in dust-proof cases.

The Palmer & Singer line, collectively, each car individually, is by far the best value offered today. No cars, at any price, can surpass them in excellence of materials used, in quality of workmanship, in design, in style, in efficiency, performance and durability. We stand behind this statement.

Our models are shown here. Each is absolutely the BEST that can be built, in its class and horse-power. This we guarantee. They will out-perform, out-wear, out-do in every way ANY cars of their price and rating, and MOST cars of vastly higher price and rating.



The P. & S. Four-Forty Seven Passenger Touring Car. 4 Cylinders, 40-45 H. P. Price, fully equipped, \$4,000.

PALMER & SINGER MANUFACTURING COMPANY

1620-22-24 Broadway, New York

GARAGE NOW

1321 Michigan Ave., Chicago

Sole Distributors for the Famous Simplex, \$5,750

OPEN

Metropolitan Agents for the Selden Car, \$2,000

When Writing to Advertisers, Please Mention Motor Age.

OCT. 1908

THOMAS The World's Champion

The Thomas Flyer Wins the Race Around the World

The Thomas Flyer entered Paris Thursday, July 30th, winning the New York to Paris race, the greatest endurance contest in history, by TWENTY-SIX DAYS, and being the ONLY car of all those entered TO GO THE OFFICIAL ROUTE. The Thomas traveled 2385 miles on land under its own power MORE than its nearest competitor, and this over the worst, the most racking portions of the route, and under the worst conditions. In addition to this the Thomas traveled 3246 miles farther by water—a total of 5031 miles farther than its nearest competitor, which shipped by rail from Pocatello, Idaho, to Seattle, avoiding the most severe portion of the road across the American continent. That the Thomas should arrive in Paris only four days behind the German car, which traveled 5031 miles less, is sufficiently remarkable to cause world-wide comment. That the Thomas should perform this feat in spite of days lost by misdirection—in spite of days lost by cornering of all the gasoline at Vladivostok by a foreign competitor—these facts and the fact that the Thomas which performed this feat is a regular stock car, are the reasons why all Europe is admitting to-day that America produces the best cars in the world, and that no car ever produced in any land can compare with the Thomas, or begin to duplicate its performance.

The Thomas Flyer which won the New York to Paris race was selected only six days before the race. It was already crated and tagged to be shipped to the Thomas agent in Boston. It was a stock model pure and simple, and no change of any kind was made in any mechanical part, except the replacement of the drop front axle for one of the straight, such as are ordinarily used on Thomas cars shipped to Western districts. After traveling 13,431 miles over the worst roads ever attempted by any car, the Thomas is reported to be in excellent condition, and save for the physical exhaustion of its crew, due to the terrific pace they made, driving day and night through almost trackless wilderness, COULD START FROM PARIS TO-DAY AND COME BACK OVER THE SAME ROUTE.

It is doubtful if American motorists will ever learn the whole of the frightful conditions the Thomas car met and successfully overcame. That of all the specially built foreign cars to start, one of them should actually finish directly contradicts the expressed opinions of many automobile experts, who frankly declared the route impassable to any self-propelled vehicle ever made. But that the Thomas, a simple stock car, should not only finish, but should be the only car to cover the official route, should win by TWENTY-SIX DAYS, defeating all these specially built foreign champions, proves that America is years ahead in the building of SERVICE cars, and that the Thomas leads the world in automobile construction by the same wide margin that the Thomas flyer lead all comers of all nations in the great race 'round the world.

In the New York to Paris race, not only an American car, but also American tires scored an important triumph. Diamond quick-detachable tires on the Thomas car gave excellent service.

The route of the racers led over the worst roads of the American continent at the worst time of year, through the heaviest snows of the winter, though the enormous snowdrifts, the heavy mud and deep ruts of Russia and Siberia in the rainy season, through almost impassable swamps, thousands of miles remote from civilization and repair shops, through unknown countries, over unknown and unbroken roads. A large proportion of this traveling was done at night, when road obstacles, avoidable in the daytime, assumed the most dangerous proportions. Contrast this performance with the easy daylight travel of a Glidden Tour on well traveled roads, always amidst friends and in sight of villages or farm houses, and the difference between the Thomas feat and the most trying public performances of other American cars will be readily apparent.

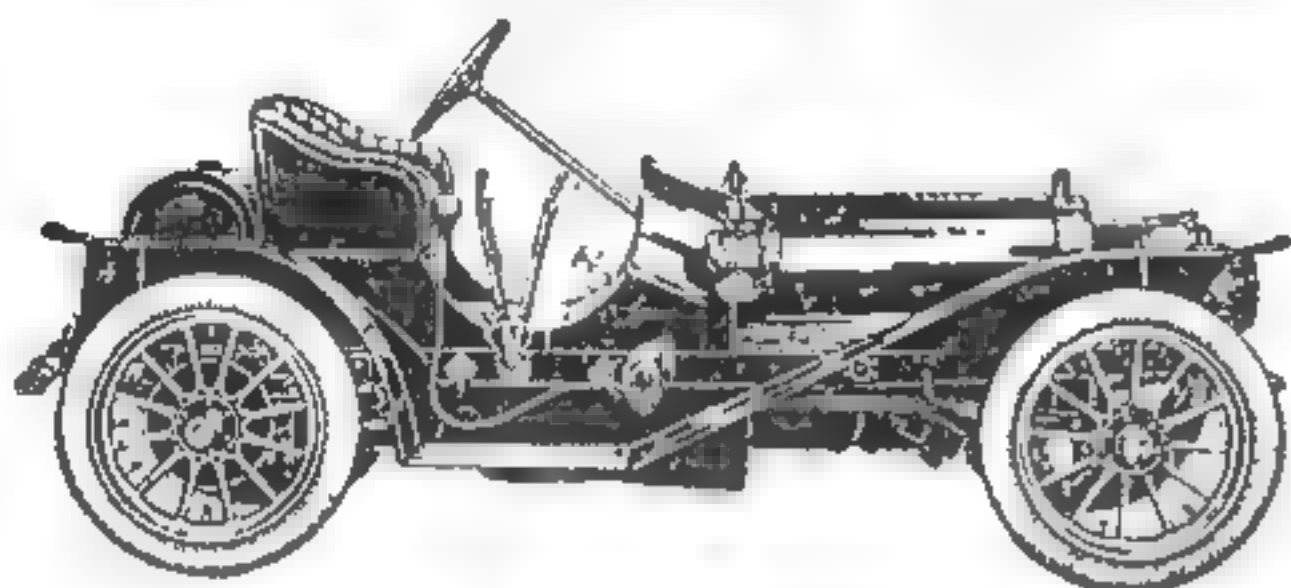
Every 1907-8 stock Thomas Flyer is a mechanical duplicate of this world's champion, and every 1908-9 Thomas Flyer is equal to this car in EVERY way, and superior to it in MANY ways, and ready at any moment for a trip 'round the world.

National MOTOR CARS

"The All Ball-Bearing Cars"

The 1908 Line consists of

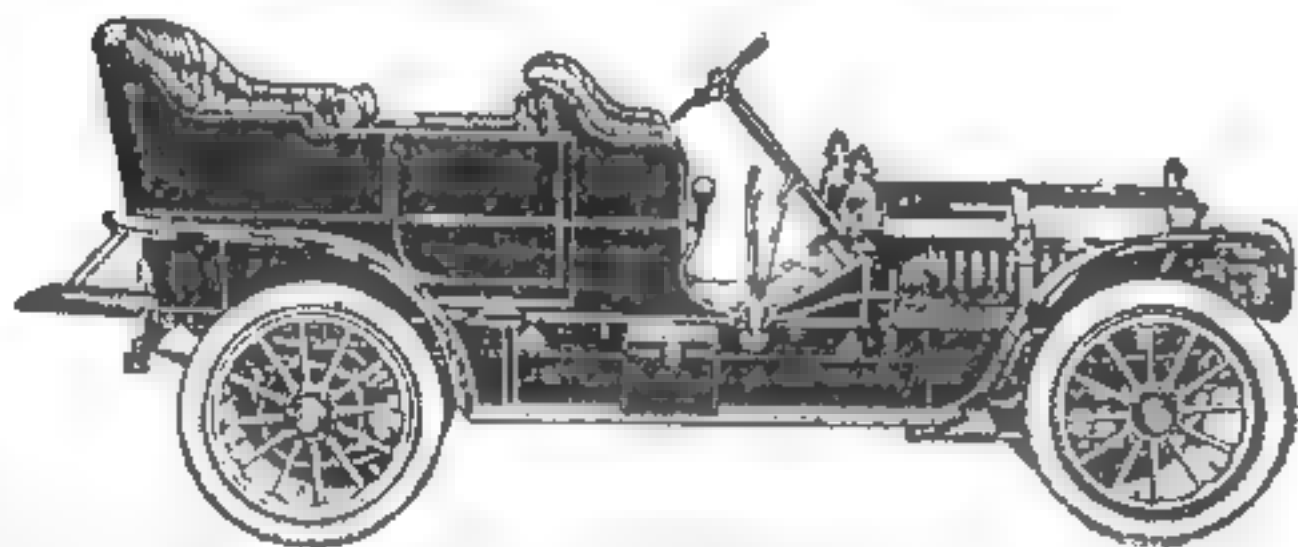
**Two 4-Cylinder and
Two 6-Cylinder Models**



**In Touring Cars, Limousines and
Roadsters**

each equipped with

National Ball-Bearing Motors



The entire line embodies the tried and proven NATIONAL type of construction, refined and perfected in all details to the highest possible degree.

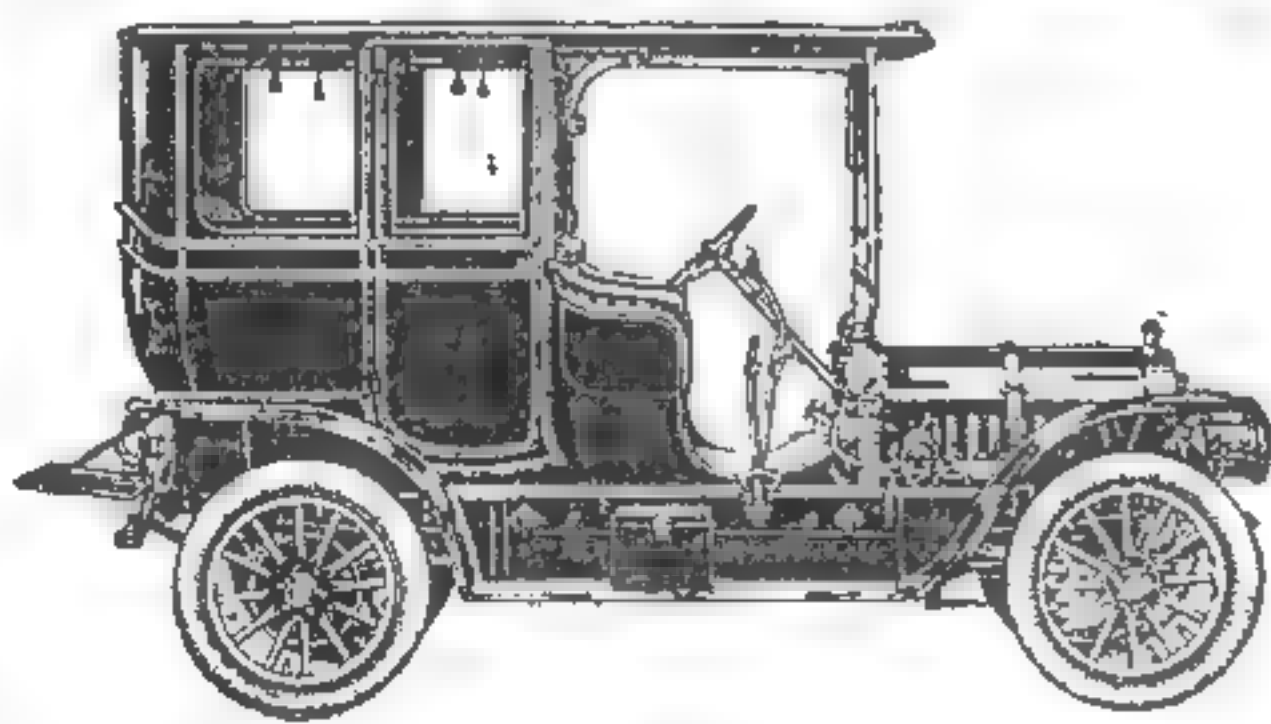
National Model K, 4-cyl., $4\frac{7}{8} \times 5$, \$3500

National Model N, 4-cyl., 5×5 , 3700

National Model R, 6-cyl., $4\frac{1}{2} \times 4\frac{3}{4}$, 4200

National Model T, 6-cyl., 5×5 , 5000

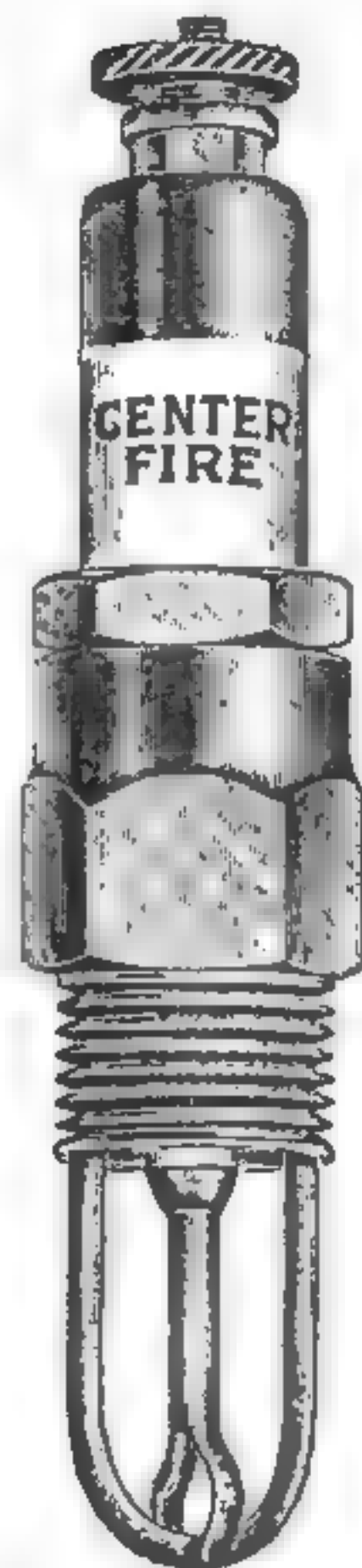
Each Machine Carries 7 Passengers Comfortably



Write for Descriptive Matter

National Motor Vehicle Co.

1003 East 22d Street
Indianapolis, Ind.



Two Live Ones

"CENTER FIRE"

Spark Plugs

INCREASE POWER 10 PER CENT.

Ignition in center of compression. Always clean and ready. Save gasoline and worry. Try them and be convinced. Samples \$1.00 each. Give name of car and year.

AGENTS WANTED

Regular Price \$1.50. Discount to the Trade

DECARBONIZER

Removes
CARBON
from all
parts of
GAS ENGINE

without injury
and quickly.

20,000 users during 1907.
Sample quarts \$1.50. Guaranteed harmless.

AGENTS WANTED

**GENERAL ACCUMULATOR
AND BATTERY COMPANY**

120 Second Street
Milwaukee, Wis.



A new wonderful construction—the Shell and Electrode only.

Only Spark Plug in the world without asbestos packing or copper gaskets. No leakage possible.

Made of indestructible mica.

\$1.50 ANY
THREAD
UNLIMITED GUARANTEE

**Sold By All First-
Class Dealers.**

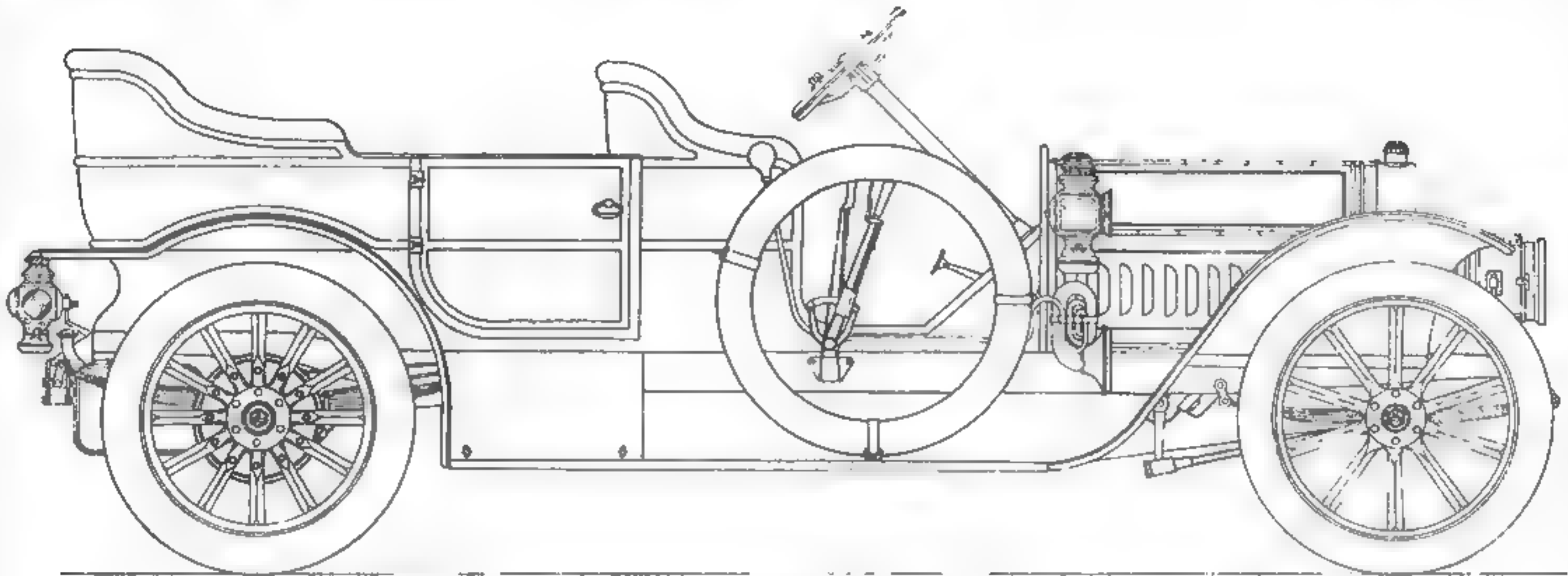
The Trade Supplied By

The MOTOR CAR EQUIPMENT CO.
55 Warren Street, - - New York

September 2, 1909.

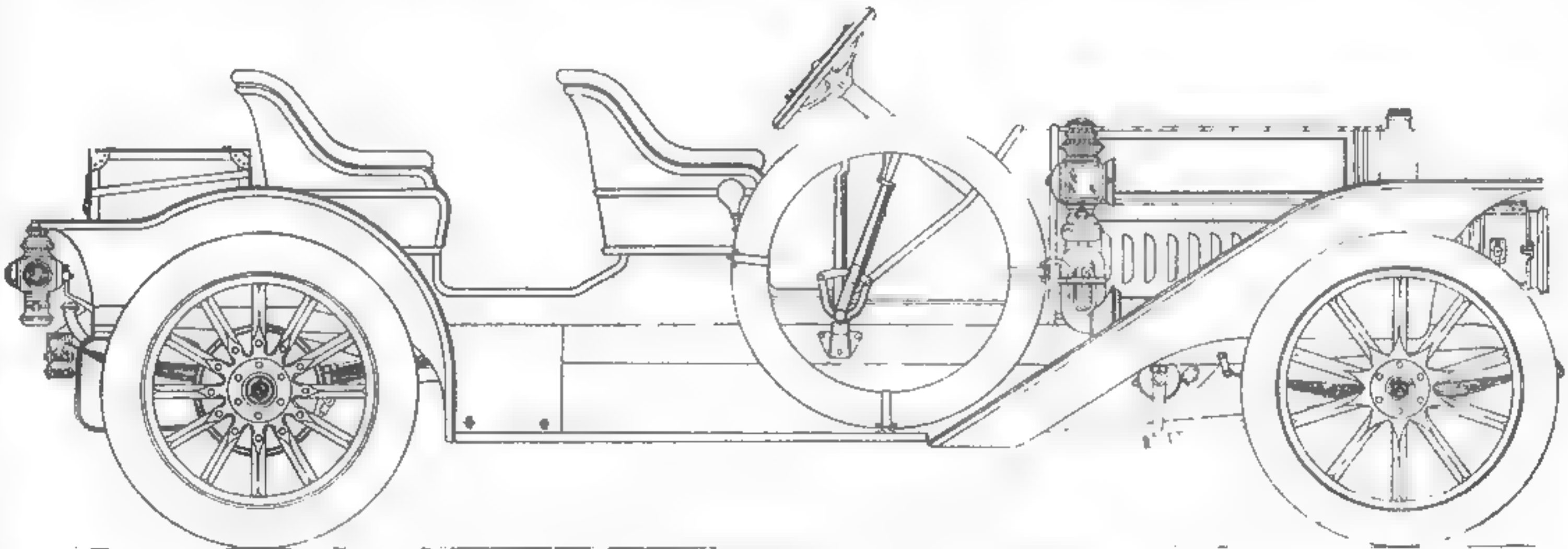
THE AUTOMOBILE

CROXTON-KEETON 1910 CARS



Standard Design—Not Radicalism—Bosch Magneto Standard Equipment

The CROXTON-KEETON CARS, formerly known as the Jewel Cars, are made in four models for 1910, in all of which are several improvements. Chrome Vanadium steel is used throughout in the selective gearset and Timken Roller Bearings carry both gearset shafts. In the rear platform spring, as well as in the front springs, Krupp's Silicia Manganese steel is used; this being the best obtainable steel for springs. On all cars the 40-horsepower Rutenber motor, 4 3-4-inch bore and 5 inch stroke, with crankcase-contained oiling system, is used. The clutch is a leather-faced cone with cork inserts. Throughout the car only the best materials and highest-class workmanship are used



Shock Absorbers Regularly Fitted. Standard Lamp Equipment on All.

The **CROXTON-KEETON MOTOR Co.**
MASSILLON, Ohio

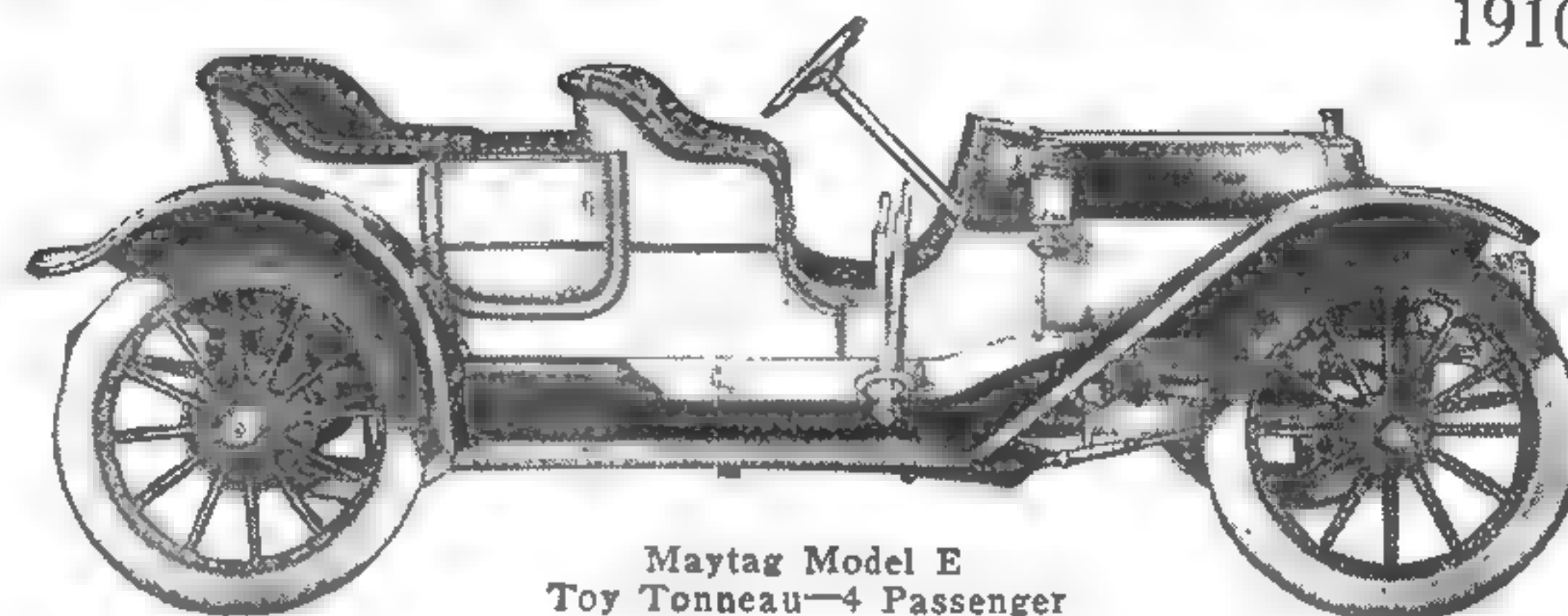
PLEASE MENTION THE AUTOMOBILE WHEN WRITING TO ADVERTISERS

THE "MAYTAG" Formerly The Mason

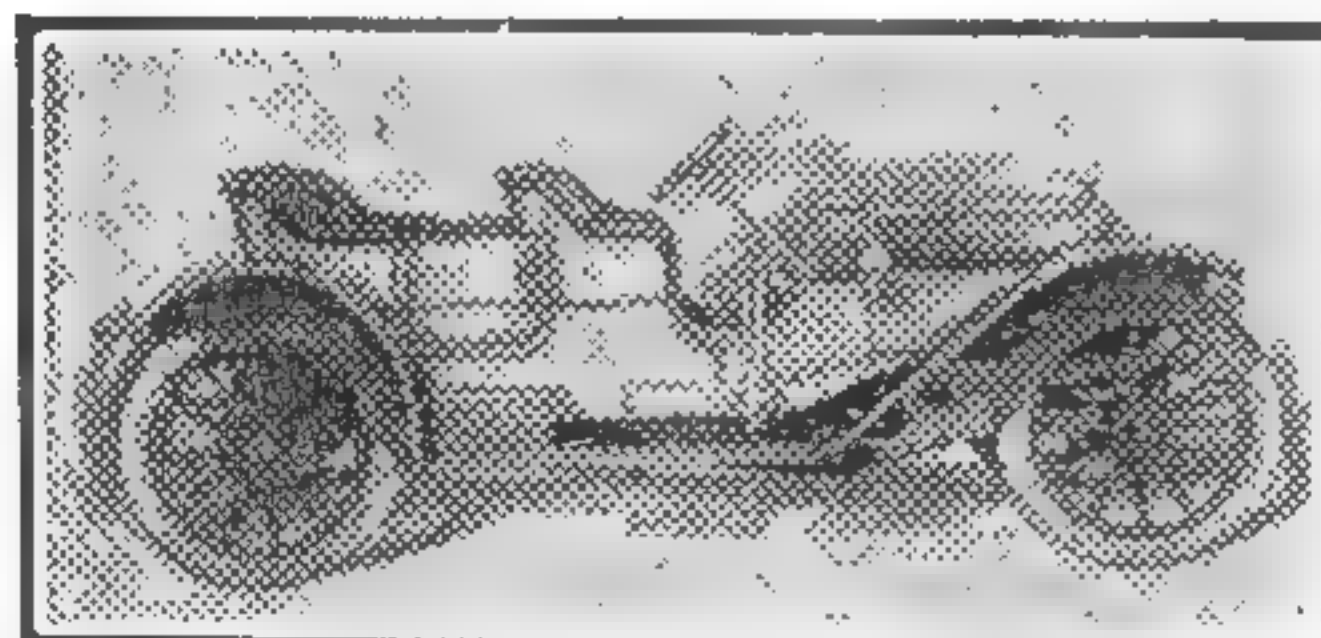
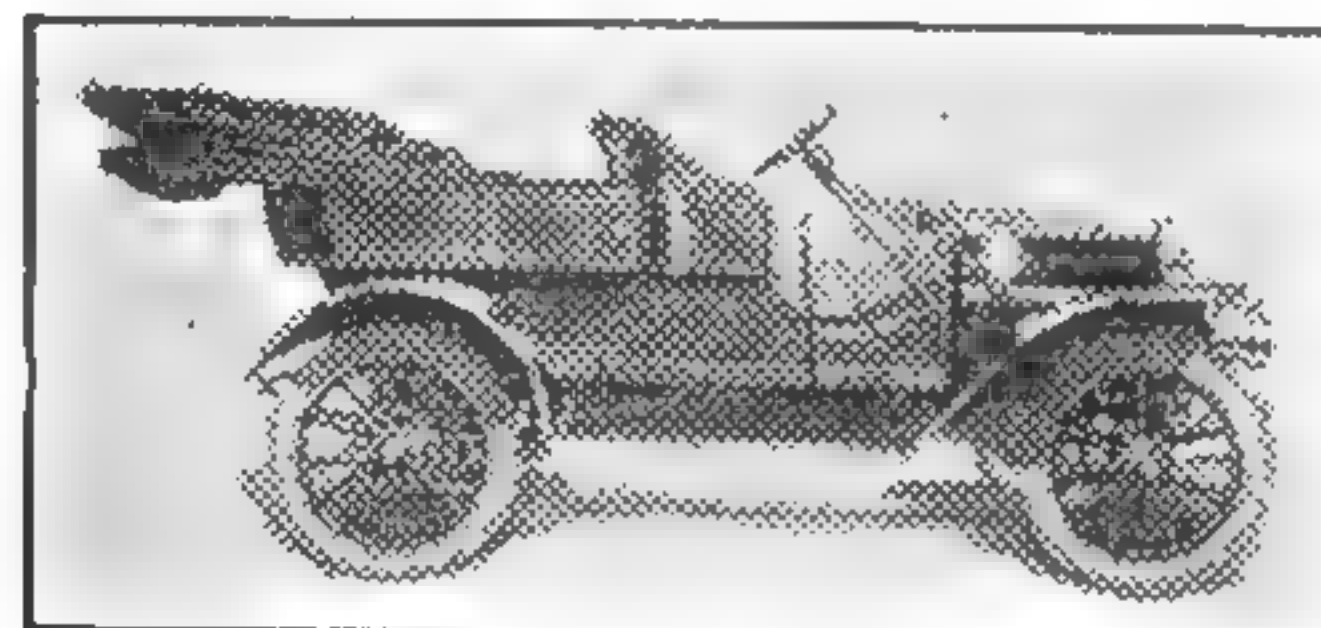
62

"The Hill Climber"

This irresistible Car has Whipped them All in Climbing Hills, Endurance, all Displays of Power and Economy of Maintenance.



Maytag Model E
Toy Tonneau—4 Passenger



The "Maytag" (formerly the Mason), though of modest price, has been creating sensations in different parts of the country for the past four years.

Climbing hills that are absolutely inaccessible to other cars—winning over cars in the \$5,000 class in Glidden tours, hill climbing contests, endurance runs, and the like. See catalog for records, medals, trophies and cups won.

And the Maytag is equally far ahead of all low or medium priced cars in other respects—easiest riding, simplest in operation, most economical in maintenance, travels from four to forty miles an hour on high, and is as silent as a ghost.

Made in six models, \$1,250 to \$1,750.

Double opposed horizontal and four cylinder—

24 to 28 and 35 to 38 H. P.

Write for catalog and name of nearest dealer

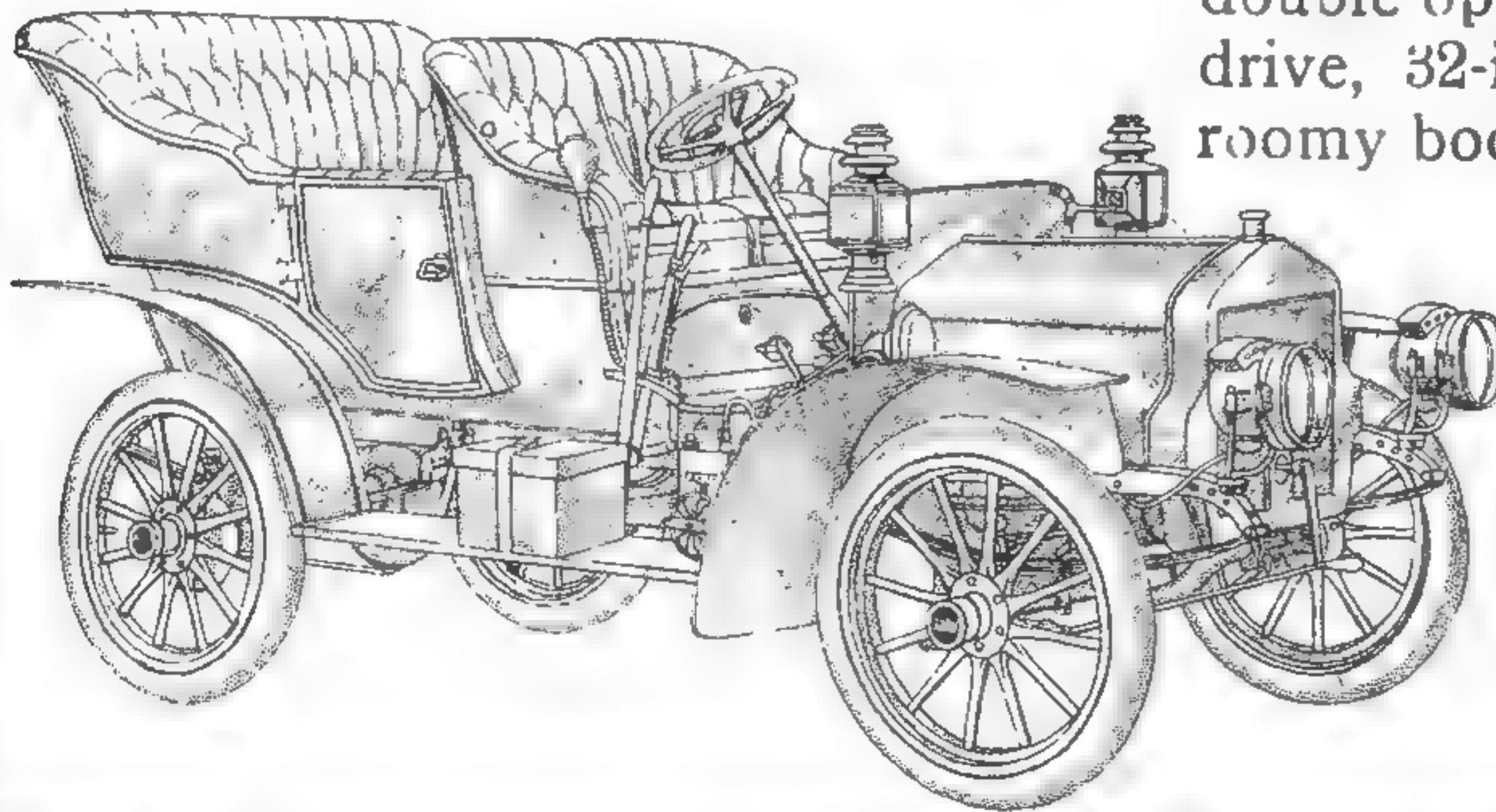
For dealers the "Maytag" line for 1910 is the only whirlwind on wheels. Write at once for proposition.

MAYTAG-MASON MOTOR CO., MAYTAG STATION ²⁵ Waterloo, Iowa

When Writing to Advertisers, Please Mention Motor Age.

Detroit

We can prove the superiority of Detroit cars in competition with any car built, selling for less than \$2000. If you are a doubter, get our catalogue. 22-24 H. P. double opposed motor under hood, shaft drive, 32-inch wheels, long wheel base, roomy body, etc. Price, \$1500



J. N. WILLYS CO.

Exclusive Selling Agents

ELMIRA, N. Y.

New York Branch, 2230 Broadway

Manufactured by

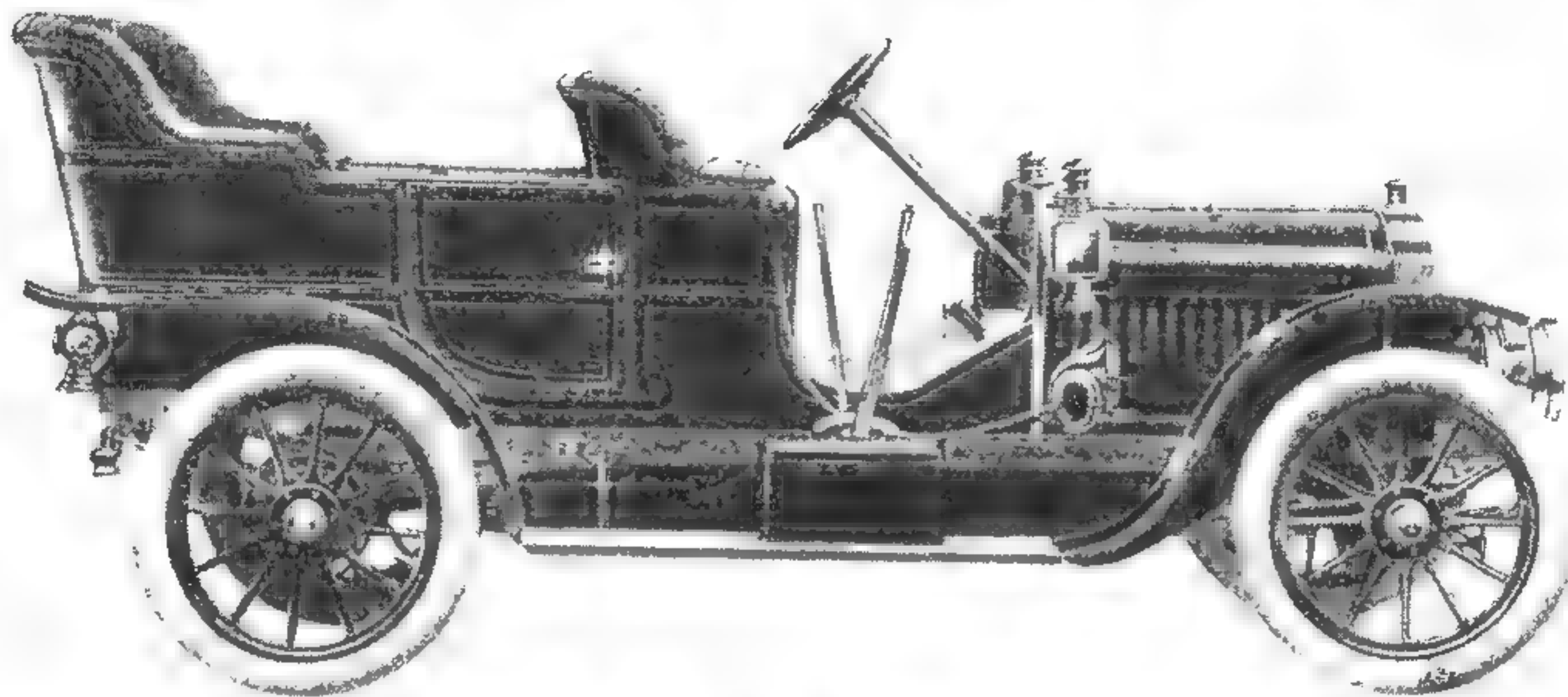
Detroit Auto Vehicle Co.

FACTORIES

DETROIT, MICH.

ROMEO, MICH.

The Car That Has No Valves



19

Four Cylinder
\$2500



09

Three Cylinder
\$1750

Let Us Tell You The Vital Points About The Elmore Valveless, Two Cycle Engine

First, you must understand that two cycle means an impulse every time the fly-wheel turns.

Four cycle means an impulse only every second revolution—momentum must spin the fly-wheel around once before more power is applied.

Knowing that, you readily can realize the tremendous advantage of the continuous application of power by the Elmore engine.

There is power back of every stroke of the piston—power applied to the wheels of the car every time the fly-wheel turns—not every other time.

The importance of this impresses itself on you the first time you ride in the Elmore. You at once notice the smooth, easy, steady motion of the car. That is because the power is constantly flowing from engine to wheels in a steady stream—not jerkily applied by a four cycle engine.

Then, again, the Elmore engine is the simplest in the world.

It has just three moving parts.

Surprises you, does it? You've always thought the only engine that could drive a car was a four cycle, haven't you? Loathed the four cycle and its valves, cams, springs, lifts, rollers and a hundred odd other parts, but had to put up with them, you thought. ¶ But you don't have to endure it longer, or the trouble and excessive expense brought on by its diabolical contraptions. ¶ Be an Elmore convert. Know what a real pleasure motoring can be when stripped of the never-ending fuss of the four-cycle engine. Feel the car glide under you, instead of being propelled by a series of jerks. Escape the unnecessary expense and exasperation. Enjoy your car—and make it an Elmore. ¶ Better see the Elmore agent right away. Have him explain the Elmore principle fully. Ride in the car. Talk to Elmore owners. We know what they'll tell you, but prefer you to get it from them. ¶ **THE 1909 ELMORE** is ready to market and the increased output will be quickly absorbed. We base the prediction on the last two seasons and our knowledge of conditions. ¶ Act quickly or you may be disappointed. ¶ See your **ELMORE** agent, and send for 1909 Literature.

ELMORE MANUFACTURING CO.,

904 Amanda St.
CLYDE, OHIO

MEMBER OF ASSOCIATION OF LICENSED AUTOMOBILE MANUFACTURERS

OCT. 1908

The \$1500 Car

That Goes Them All One Better

The car is a marvel—the result of eight years' experience in the building of \$11,000,000 worth of Mitchell Motor Cars—the average price of each car being but \$1500—a \$1500 car built by specialists in the making of low-priced cars.

The Mitchell's phenomenal success started the present-day price revolution.

The size of our factory has been doubled every year for the last four years.

The Mitchell, today, has the largest sale of any high-grade car in America.

That's why makers who have always built costly cars are now putting out cheaper cars.

But we have an established low-priced car.

They are offering first attempts.

We have eight years of actual experience—they two years of experiment.

For eight years our prices have been figured to give you the most you can get.

Thus we have brought them down to the minimum.

No *costly* car can show better records than the Mitchell has made.

\$150 Splitdorf Magneto Free

We furnish a Double Ignition System with genuine Splitdorf Magneto free the price of which, when bought alone, is \$150.

One other \$1500 car includes a cheap \$35 Magneto.

Another, if equipped with Magneto, costs \$125 extra—or \$1625.

Then, we equip with $\frac{1}{2}$ -inch larger tires than any other—on universal rims. These tires cost \$50 extra for a set. This extra cost is also included in our price of \$1500.

Here are the specifications:

28-30 h. p.—4-cylinder, $4\frac{1}{4} \times 4\frac{1}{2}$ —Speed 4 to 50 miles an hour on high gear—Wheel base about 105 inches

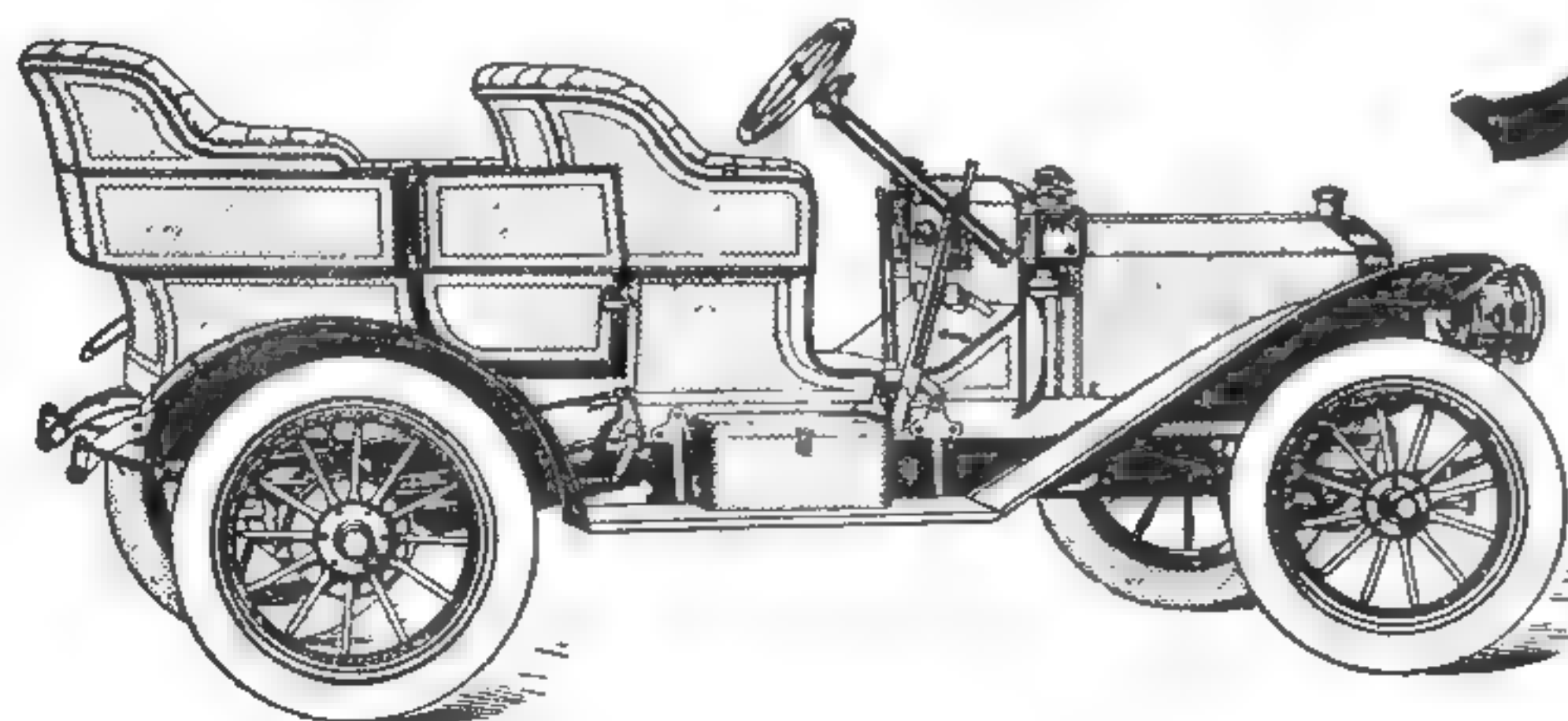
—Weight, about 1850 lbs.—Bodies, regular 5-passenger—Roadster, with double or single rumble or runabout. Bodies, of metal gray, with red upholstery. Red running gear. Selective transmission.

Nickel alloys and Vanadium steel used in all driving members. All driving parts, gears, etc., made in our own factory.

Double Ignition system—Magneto free.

Tires, 32x4, on universal rims.

Get full information. Agents are in wild stampede to get these cars.



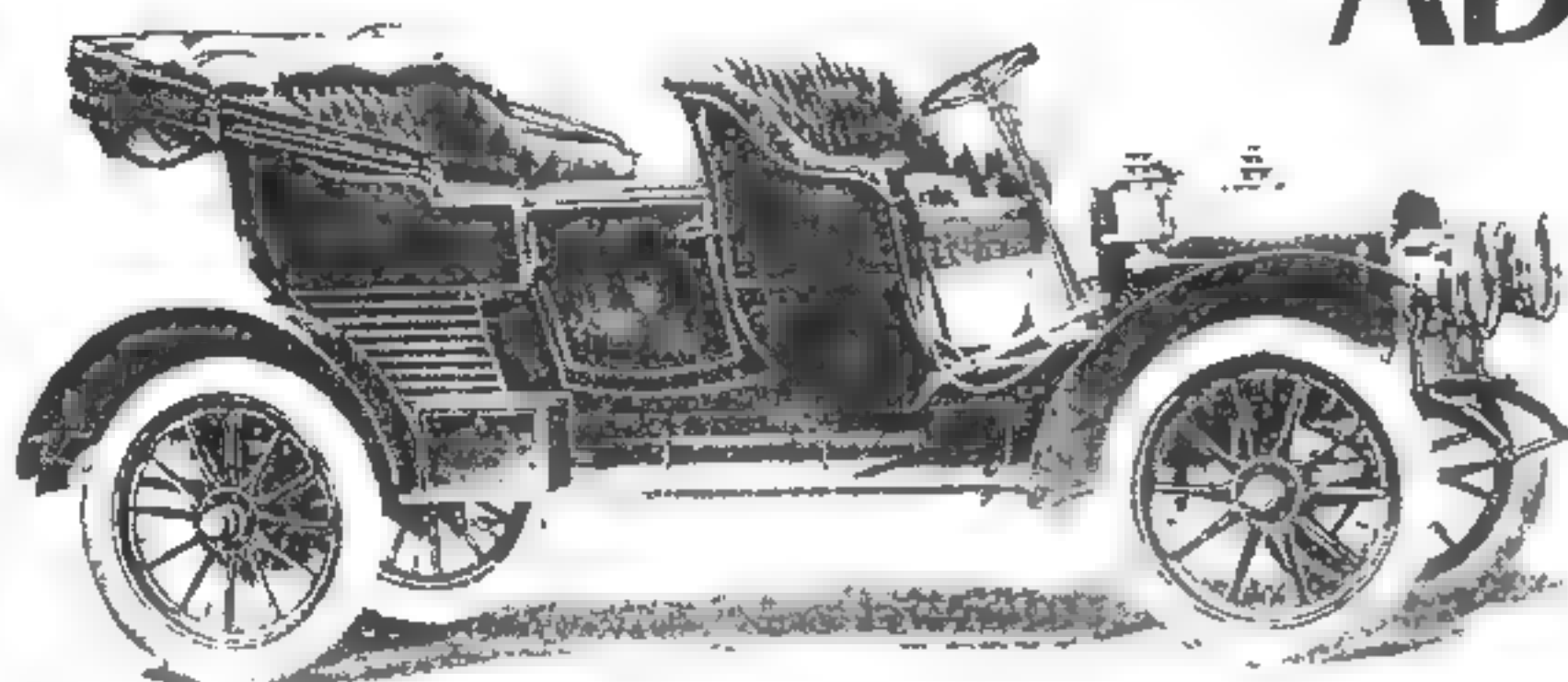
Mitchell

**Mitchell
Motor Car Co.**

500 Mitchell St.

Racine, Wisconsin

Standard Manufacturers,
A. M. C. M. A.



ADAMS-FARWELL

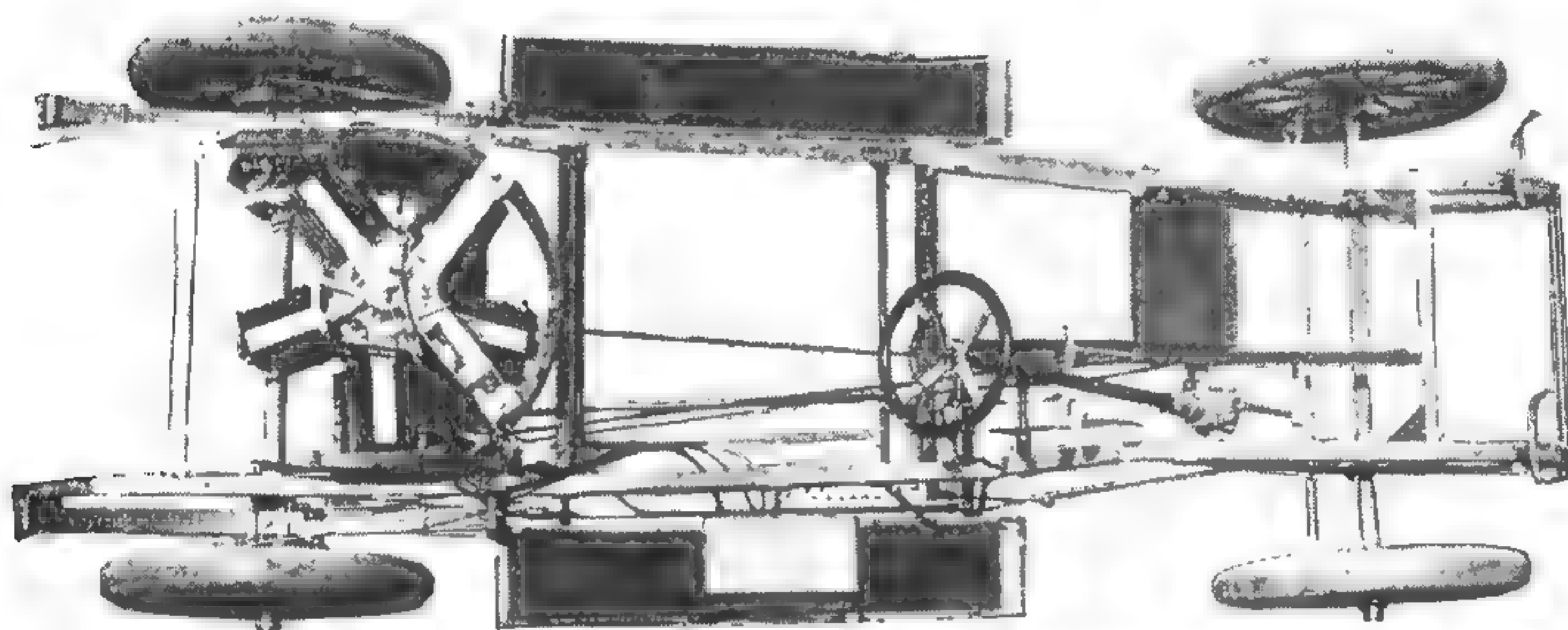
Revolving Air-Cooled Motor

40-45 H. P. Five Cylinders, 5x5 Inches

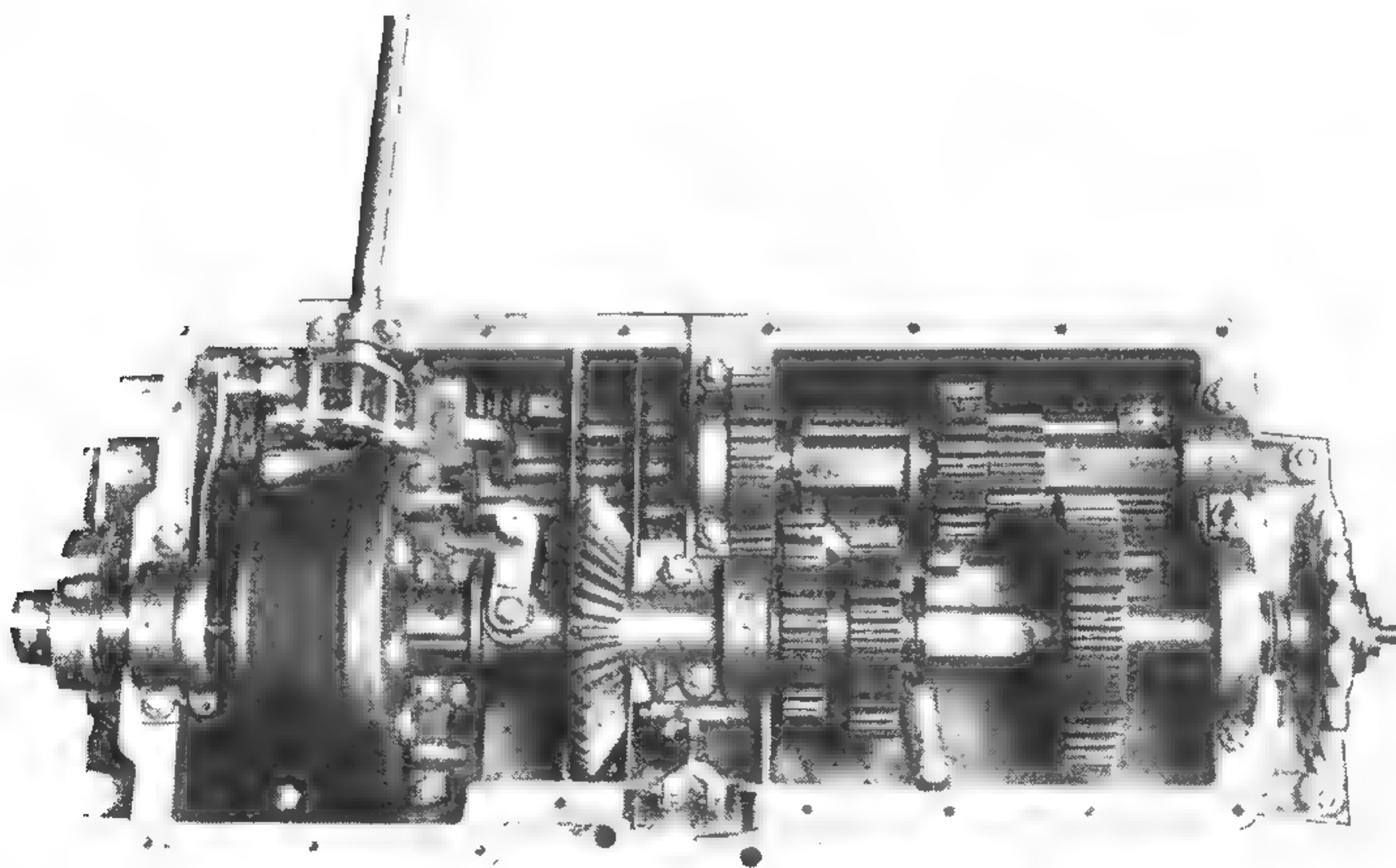
Four Speed Selective Transmission with two clutches, requiring no skill to operate. It is impossible to engage both clutches at the same time.

Ask for "61 Vantage Points."

The ADAMS COMPANY
East Fourth St., Dubuque, Iowa



CHASSIS OF ADAMS REVOLVING-CYLINDER MOTOR-CAR
The Adams Company, Dubuque, Iowa.



TRANSMISSION GEAR AND CONTROLLING MECHANISM OF THE ADAMS CAR
The Adams Company, Dubuque, Iowa.

CYCLE AND AUTOMOBILE TRADE JOURNAL



THE CURTISS FLIGHT, ALBANY TO NEW YORK.

Glenn H. Curtiss, Sunday, May 29th, added further laurels to his record by a magnificent flight of 150 miles from Albany, N. Y., to Governor's Island, his time being 2 hours and 54 minutes, an average of about 51 2-3 miles per hour. Curtiss had waited five days for the proper weather conditions to make his flight an assured success. At 7 o'clock he rose gracefully into the air and following the course of the Hudson at a height of about 1000 feet, or skimming the surface of the water to avoid contrary winds he did not land until he reached the previously selected landing place, 5 miles south of Poughkeepsie, and then again at Spuyten Duyvil at 207th street, within the city limits of New York, thereby winning \$10,000.

The speed of the aircraft was so great that it easily distanced the special train which had the right of way and was vainly racing along the edge of the river bank in an endeavor to keep him in sight.

One Continuous Ovation.

Probably no craft which ever sailed the Hudson was ever watched with more curious eyes and breath holding interest than was the Curtiss machine in its course high above the river. After circling over a part of the city of Albany, to comply with the rules of the prize contest, Curtiss headed straight down the river, the lusty shouts of railroad workmen and fishermen were taken up by others, and a continuous ovation greeted the daring aviator in his sensational flight. He cleared the Poughkeepsie bridge, which is 212 feet above the river, by at least 200 feet, and as the speeding airship approached Poughkeepsie, his coming being announced by the ringing of the City Hall bell, the greatest excitement reigned; even the churches being emptied of those assembled for early morning worship. At the first stop at the Stoney Brook Farm, for the purpose of replenishing the gasoline tank, the machine was directed to the alighting place as accurately as a train pulls up at a station, but by some misarrangement the gasoline was not on hand, and it was over an hour before the tank was refilled, and the machine on its way again. From there on he was greeted by a continuous whistling and ringing of bells.

There is probably no place where more treacherous currents of air could be found than over the apparently placid surface of the Hudson surrounded as it is by precipitous crags and miniature mountains. At Storm King, which rises abruptly from the water's edge to a height of 2000 feet, a tremendous side gust all but capsized the machine, and during the entire flight upward and downward currents of great strength were continuously encountered, these being apparently less close to the surface of the water than at a greater altitude.

As the haze which lay over the river dissolved itself into the city of New York, Riverside Drive and the roofs of the big apartment houses being black with spectators, Curtiss drove his machine toward the East Side and closely hugged the New York shore. While flying only a few miles from the upper end of Manhattan, about opposite Spuyten Duyvil Creek, the machine suddenly seemed to lose speed and dropped until it almost touched the surface of the water, and many thought the prize of \$10,000 was lost and that the machine was out of control. However, it began to rise again making a broad sweep and headed up the river, which was a conundrum to the assembled throng, until Curtiss waved his hand to indicate that all was well, and gliding above a railway bridge headed for a stretch of greenward upon which he alighted gracefully and safely. It seems that to win the \$10,000 prize it was simply necessary to land within the limits of Manhattan, and noticing this inviting open, Curtiss made sure of his money without risking the further flight of 12 or 13 miles to the Battery.

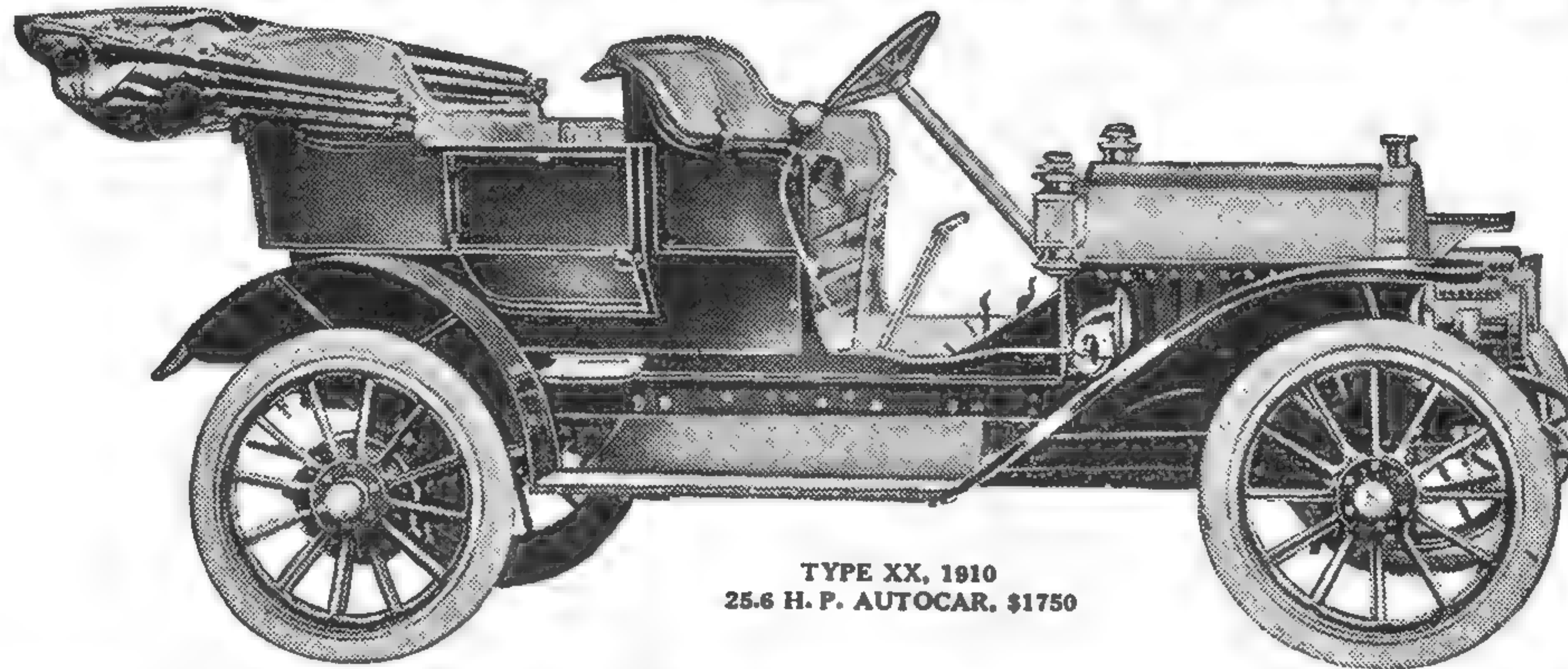
Although he had won the prize, owing to the assembled multitude who were anxiously waiting his coming further down the river, and as weather conditions were ideal he decided to continue to Governor's Island, and accordingly buttoned his coat around him, adjusted his goggles, stepped into his machine and was off again, and in a very few minutes landed safely on a stretch of made land within a few yards of the aeroplane sheds which were used during the Hudson-Fulton celebration. He was very soon joined by Mrs. Curtiss, who had arrived on the special train and within half an hour he was in New York and received the prize of \$10,000.

The Autocar

1910 TYPE XX



\$1750.00



TYPE XX, 1910
25.6 H. P. AUTOCAR. \$1750

Four Cylinders, 4"x4½".

I Beam Front Axle.

Semi-Floating Rear Axle.

Bosch Magneto — Dual System.

34" Wheels.

Five Lamps and Generator.

Universal Rims.

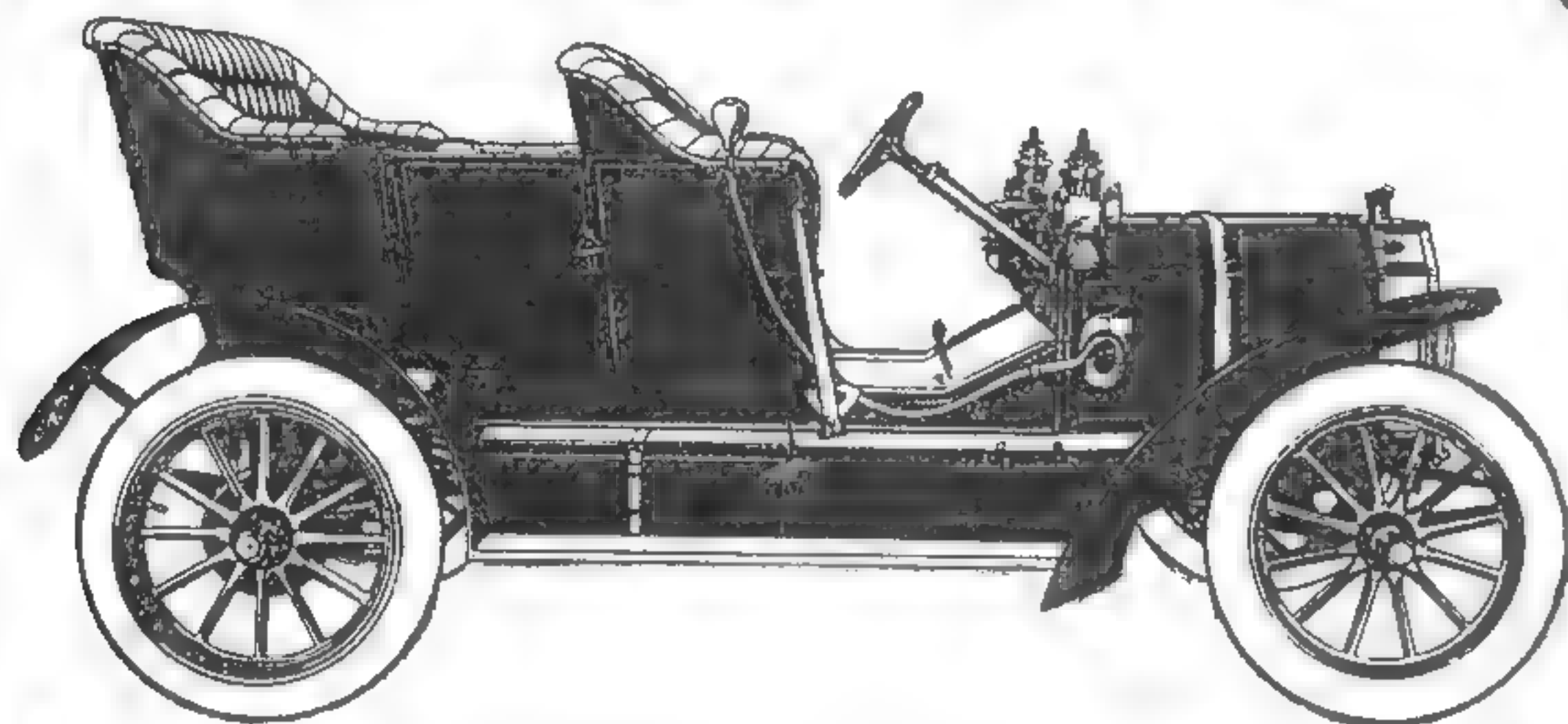
Adjustable Taper Roller Bearings Throughout.

WE HAVE GOOD TERRITORY OPEN FOR DEALERS

WRITE FOR CATALOGUE AND INFORMATION

THE AUTOCAR COMPANY, Ardmore, Pa.

1907 GREAT SMITH CAR



Price, \$2500 F. O. B. Topeka

Q Four cylinders, $4\frac{1}{2} \times 5$ inches, water cooled engine, sliding gear transmission, three speeds forward and one reverse. 107 inch wheel base, 34 x 4 inch tires. Multiple disc clutch, ample tonneau, magnificent upholstery. Full elliptic unbreakable springs. Refrigerator in box at side. Ample room for extra tire, three powerful durable brakes

**In all respects a perfect machine—
Built as well as any car in the world.**

Smith Auto. Co., Topeka, Kansas, USA

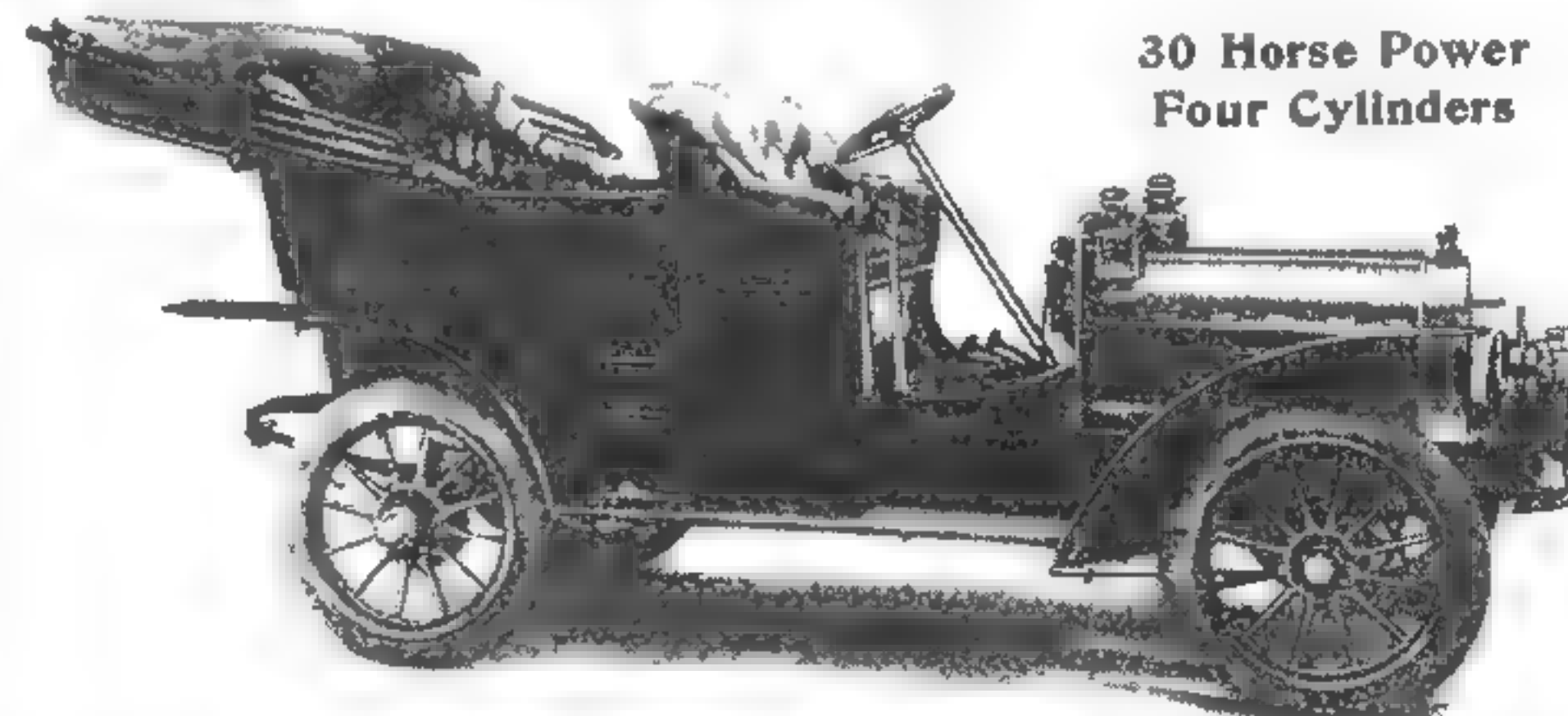
Makers of the World's Greatest \$2500 Car.

\$1850

**Compare
Kisselkar With
Any Car That
Costs Twice
As Much**

1907

D ID you ever analyze Automobile Construction with reference to the cost? Has it ever occurred to you that it ought to be possible to put out a car—even a high-grade car—at considerably less than the prevailing prices? Well, that's just what Kisselkar was built to prove. And it has *proved* it. Let us show *you*.



**30 Horse Power
Four Cylinders**

Kisselkar makes good in performance. That has been thoroughly demonstrated. The motor *must* develop at least 30 horse power under test before it is passed, and it often develops 32. It is noiseless, reliable, fast and powerful. It has shown its immense reserve time and again in the severest hill-climbing tests.

Makers: The Kissel Motor Car Co., Hartford, Wis.

Address all correspondence to

McDUFFEE AUTOMOBILE COMPANY, Sole Agents

CHICAGO, Michigan Ave. at 15th St.

MILWAUKEE, 228-230-232 Wisconsin St.

There are 112 parts of the



“Thirty”

which are accurate to the
one-thousandth of an inch

This means that in these 112 parts there is not a variation to exceed one-half the thickness of a hair.

In the assembling of the motors and other essentially accurate parts, the use of files or even emery cloth is not permitted—it is not required.

This is because Cadillac cars are standardized in every detail.

Every part fits exactly in its place. Every part works in perfect harmony with every other part.

It is this thorough standardization that gives the Cadillac that smooth, velvety, noiseless action.

It is this thorough standardization that almost eliminates friction.

It is this thorough standardization that enables the Cadillac motor to develop more power than any motor of its size ever built.

It is this thorough standardization which enables a greater proportion of the motor's power to be delivered to the ground than in any other car the world has ever produced.

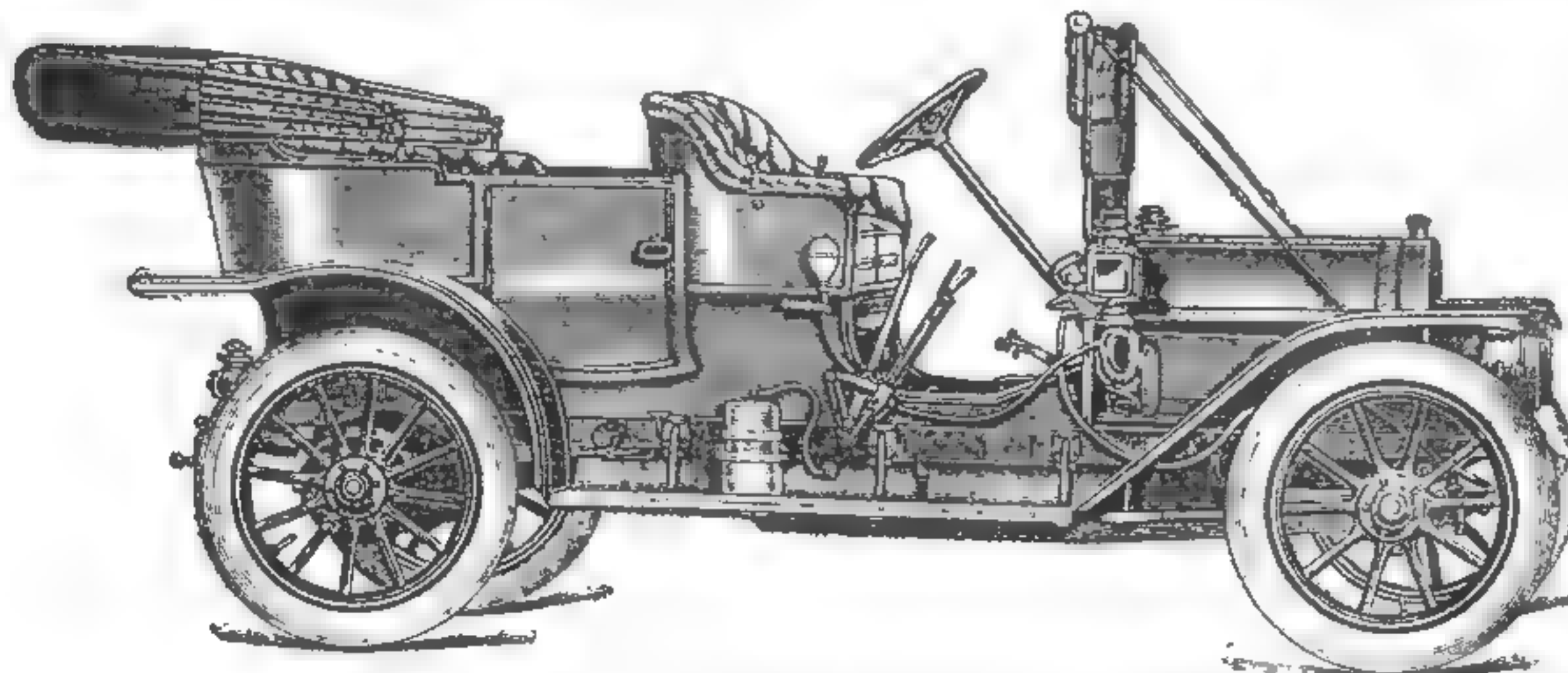
It is this thorough standardization which eliminates the twisting, grinding, racking wear characteristic of the car with illfitting parts and connections.

It is this thorough standardization which has caused the Cadillac to be universally recognized as the most durable and longest lived car ever made.

It is this thorough standardization which has eliminated the causes of many of the most vexatious “automobile troubles.”

It is this thorough standardization that is back of the Cadillac reputation for being the most economical motor car to operate and maintain.

And lastly, there is no motor car, at any price, so thoroughly standardized as is the Cadillac.



Four cylinder
30 horse power
Three speed sliding
gear transmission

\$1600 (F. O. B.
Detroit)

Including the following equipment:—Magnet, four unit coil with dry cells, one pair gas lamps and generator, one pair side oil lamps, one tail lamp, horn, set of tools, pump and tire repair kit, robe rail, tire irons.

Furnished as Touring Car, Demi-Tonneau or Gentleman's Roadster

Cadillac Motor Car Company - - Detroit, Mich.

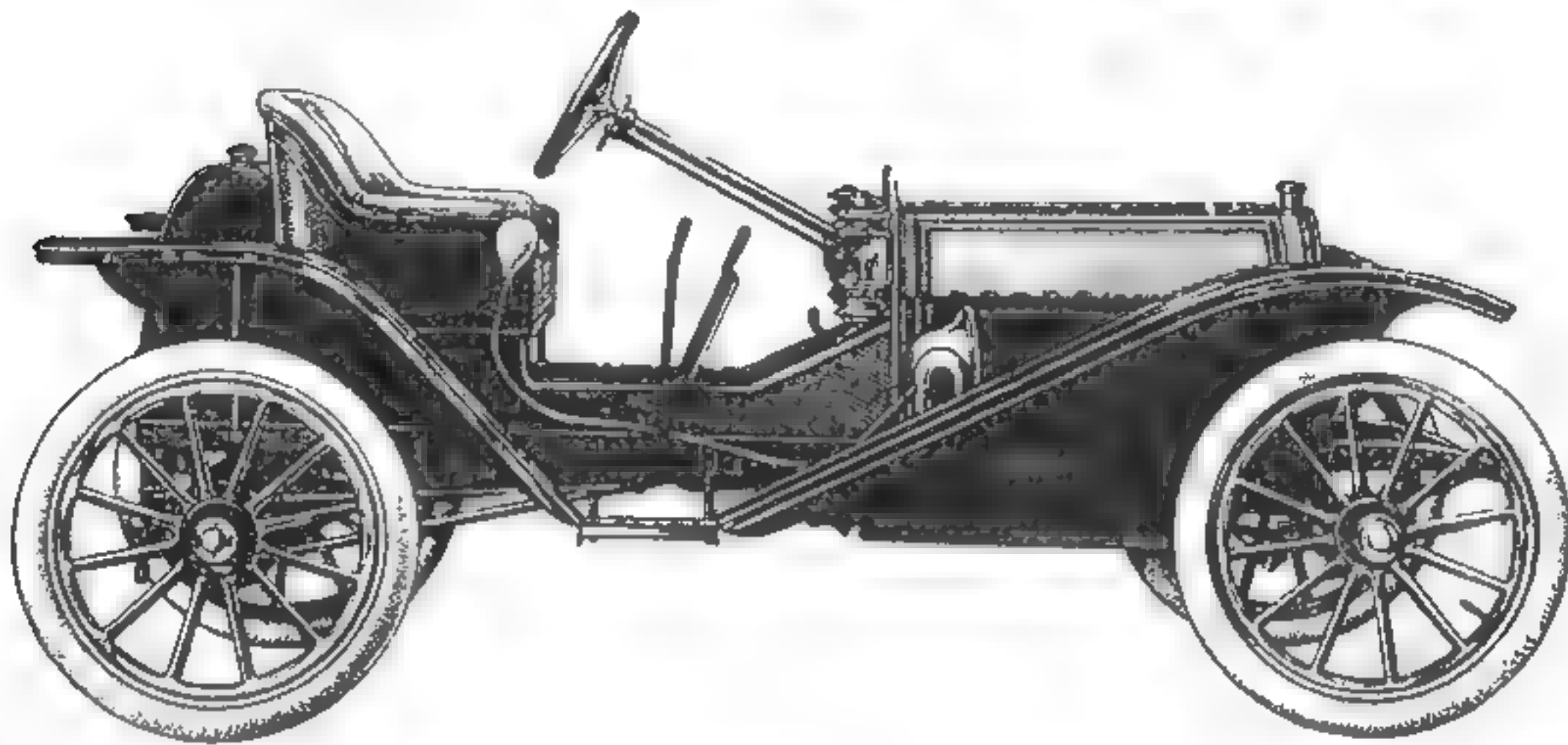
Member Association Licensed Automobile Manufacturers. Licensed under Selden Patent.

From coast to coast
everybody says the same thing about the

Hupmobile

4 cylinders
20 H. P.
Sliding gears
Bosch magneto

\$750



“The smartest and best little car ever marketed in America at anything like the money”

What people are saying in your community about the Hupmobile they are saying in every other community from coast to coast.

No other car has ridden so quickly into widespread popular approval.

Everybody has a good word for the Hupmobile—and nobody can find any room for criticism.

It is the first small car ever built in this country that is in every way as good as the most expensive large car.

It is the first small car ever built in this country possessing real dash and individuality in design.

Most small cars are makeshifts in material, in construction and in design—the Hupmobile is just as good in proportion, and just as smart in appearance as the finest big car.

If it were a large car, we could not afford to make it so good.

And you can be absolutely certain, if you see a larger car advertised at an approximate price, that the manufacturer has skimmed somewhere—either in material or workmanship.

A finer or better power plant you will not find in any car. Other engines are larger, but none is built of better materials or with more careful workmanship.

The ignition equipment is the Bosch high tension magneto—the same as supplied on the costly large cars. And the Hupmobile is the only small car equipped with this world famous magneto without extra charge.

SPECIFICATIONS

ENGINE—4 cyl., 20 H.P., $3\frac{1}{4}$ in. bore, $3\frac{1}{8}$ in. stroke; water cooled; offset crank shaft; fan bladed fly wheel in front; Parsons white bronze bearings; noiseless cam shaft.

TRANSMISSION—Selective sliding gears, shifting without noise.

CLUTCH—Multiple disc type, running in oil.

REAR AXLE—Shaft drive.

BRAKES—Two foot and two emergency (internal expanding) lined with Thermoid on rear hubs.

IGNITION—Bosch high tension magneto.

TIRFS— 30×3 inches.

WHEEL BASE—86 inches.

TREAD—56 inches.

SPRINGS—Semi-elliptical front, patented cross spring rear.

EQUIPMENT—Two side and tail oil lamps, dragon horn, tools, repair kit, pump.

WEIGHT—1100 pounds, regular equipment.

It is the same way throughout—in the sturdy strength of the axles; the pressed steel frame; the noiseless sliding gears—there is not a single point on which just criticism can be made.

If you can afford to maintain two cars—one of them should by all means be a Hupmobile.

And if you do put a Hupmobile in your garage alongside of your big car, you will find that involuntarily you will turn to it ten times to the once you use the larger one.

On the other hand, if you can have but one car, the Hupmobile's obvious advantages—low first cost and low cost of maintenance—will appeal to you all the more strongly.

Get in touch at once with the Hupmobile dealer nearest you and write for the literature.

On the Brighton Beach track, August 27, the \$750 Hupmobile defeated two S. T. O. French cars, listing at \$2,100; one Allen-Kingston, \$3,000, and one Mitchell, \$2,000, in the six hour race, covering 226 miles.

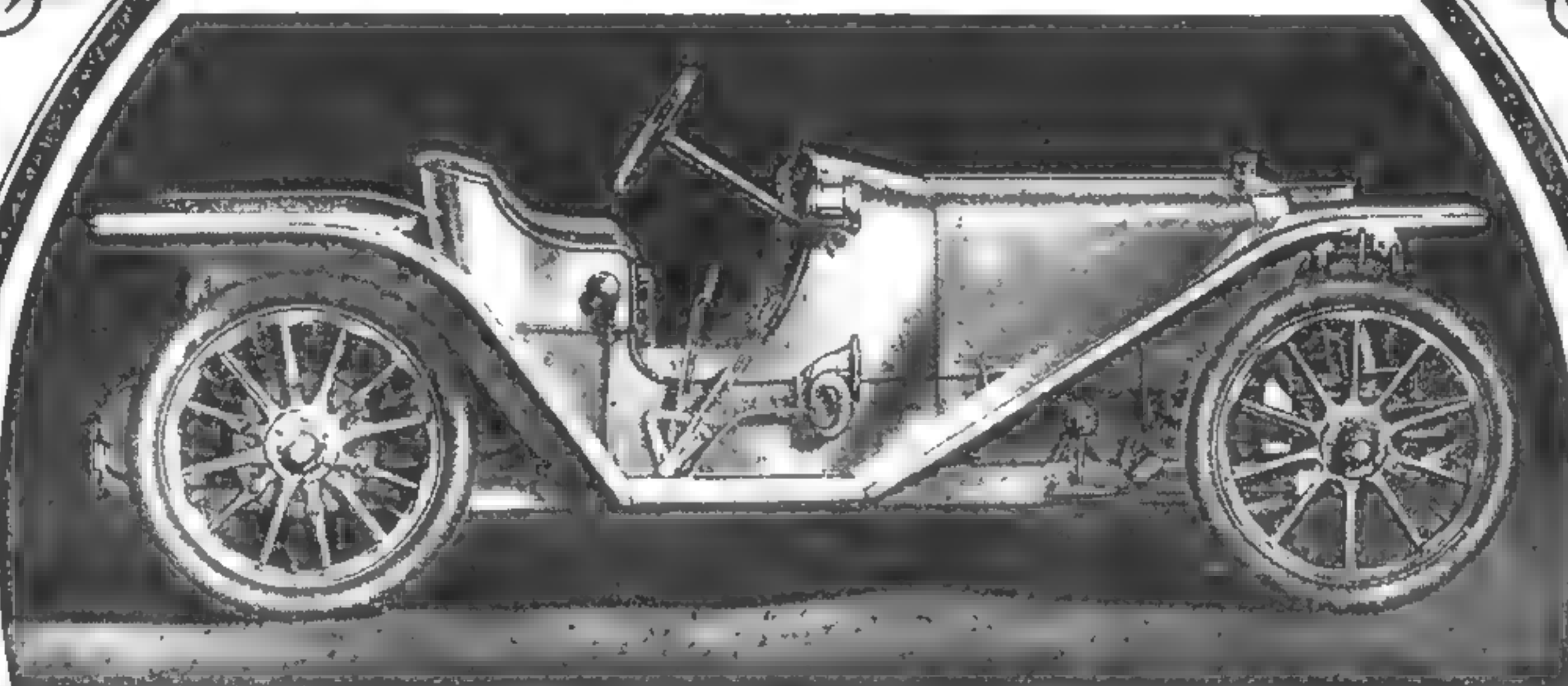
HUPP MOTOR CAR COMPANY, Dept. R, DETROIT, MICHIGAN

In answering advertisements please mention SCRIBNER'S MAGAZINE

1908

SCRIBNER'S MAGAZINE ADVERTISER

The American



'08 - 50 American Roadster, \$3,750

Take no chances. Buy a car you know is right—one that everyone knows is right. **BUY AN AMERICAN.** American cars won every stock-car event in which they were entered during 1907. At Rochester, N. Y., October 19th, the American '08 40 Roadster won two events from a field of the highest priced cars in the country, and made the best competitive time of the day.

Write for a copy of our catalogue "H"

'08 40 Roadster 40-50 h.-p. \$3250

'08 50 Roadster 50-60 h.-p. \$3750

'08 40 Tourist 40-50 h.-p. \$3250

'08 50 5-passenger Tourist 50-60 h.-p. \$3750

'08 50 7-passenger Tourist \$4000

AMERICAN MOTOR CAR SALES COMPANY

Factory Sales Agents for American, Marion and Overland Automobiles

2230 Broadway, New York, N. Y.

1911

There is Warmth and Comfort
in a

Wallace

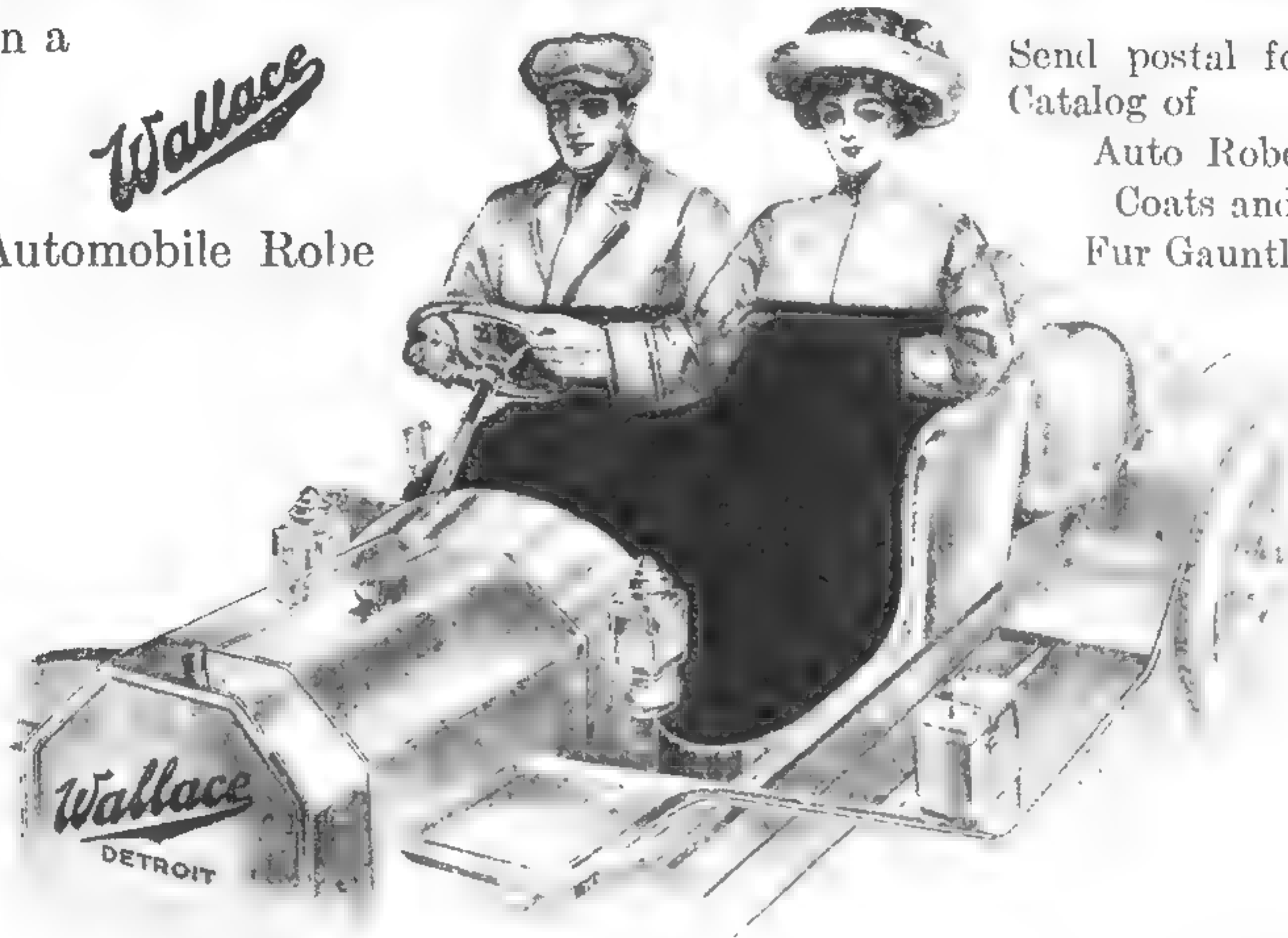
Automobile Robe

Send postal for new
Catalog of

Auto Robes

Coats and

Fur Gauntlets



HUGH WALLACE COMPANY Detroit, Mich.

Jericho

The Perfect
Motor Signal

To get the greatest pleasure out of motoring you should be free from anxiety as to the safety of the occupants of your car—and of the public.

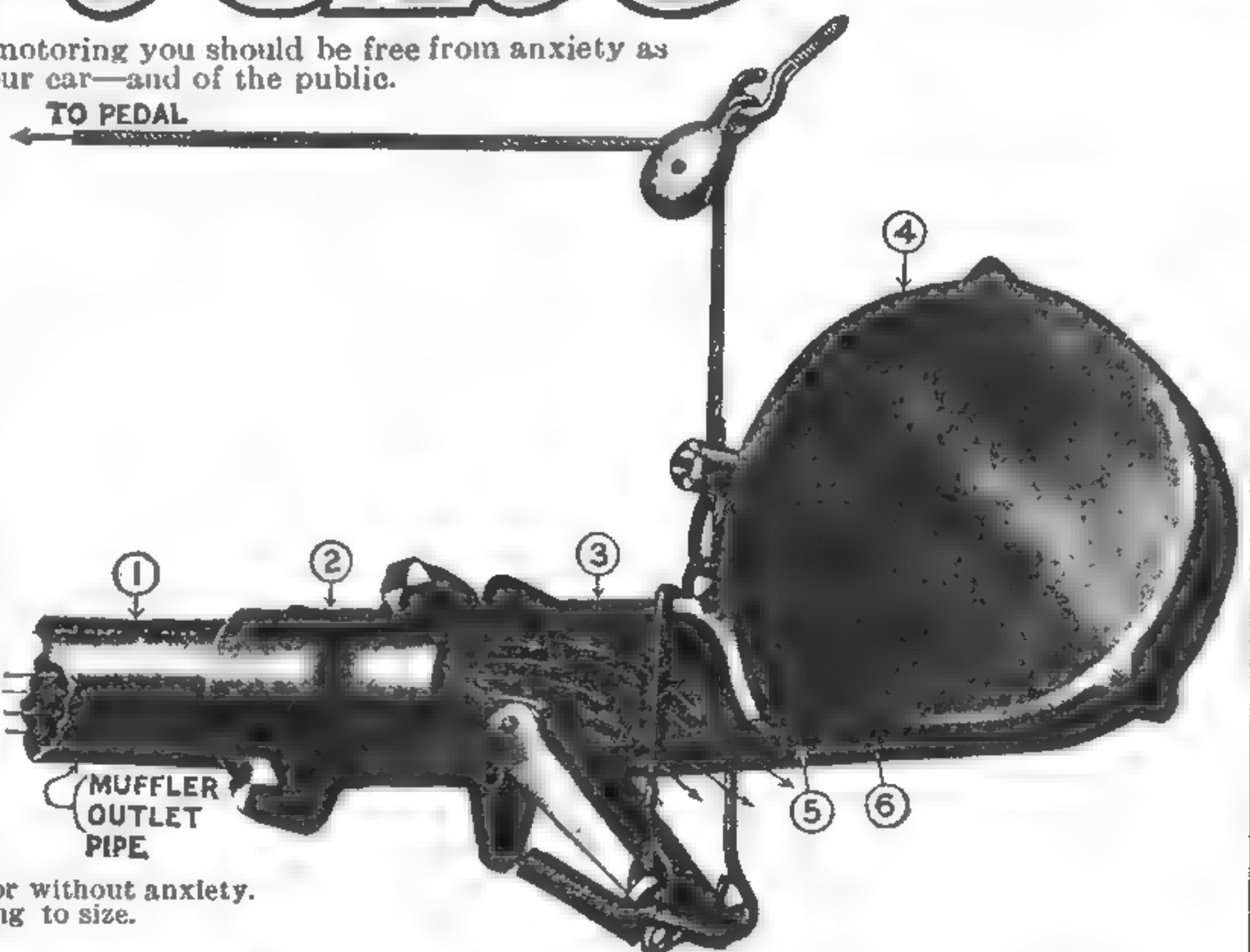
The one thing most conducive to this state of mind is the surety that your car is equipped with the right kind of horn.

All the qualities necessary to produce a perfect horn are found in the Jericho.

1. Efficiency A loud, clear signal whose mellow tone "warns without offence."

2. Simplicity Easily attached to any car and operated by foot pedal, leaving both hands free to run the car.

3. Economy Low purchase price. Is operated by the exhaust; No batteries, etc., needed. Absolutely no maintenance cost.

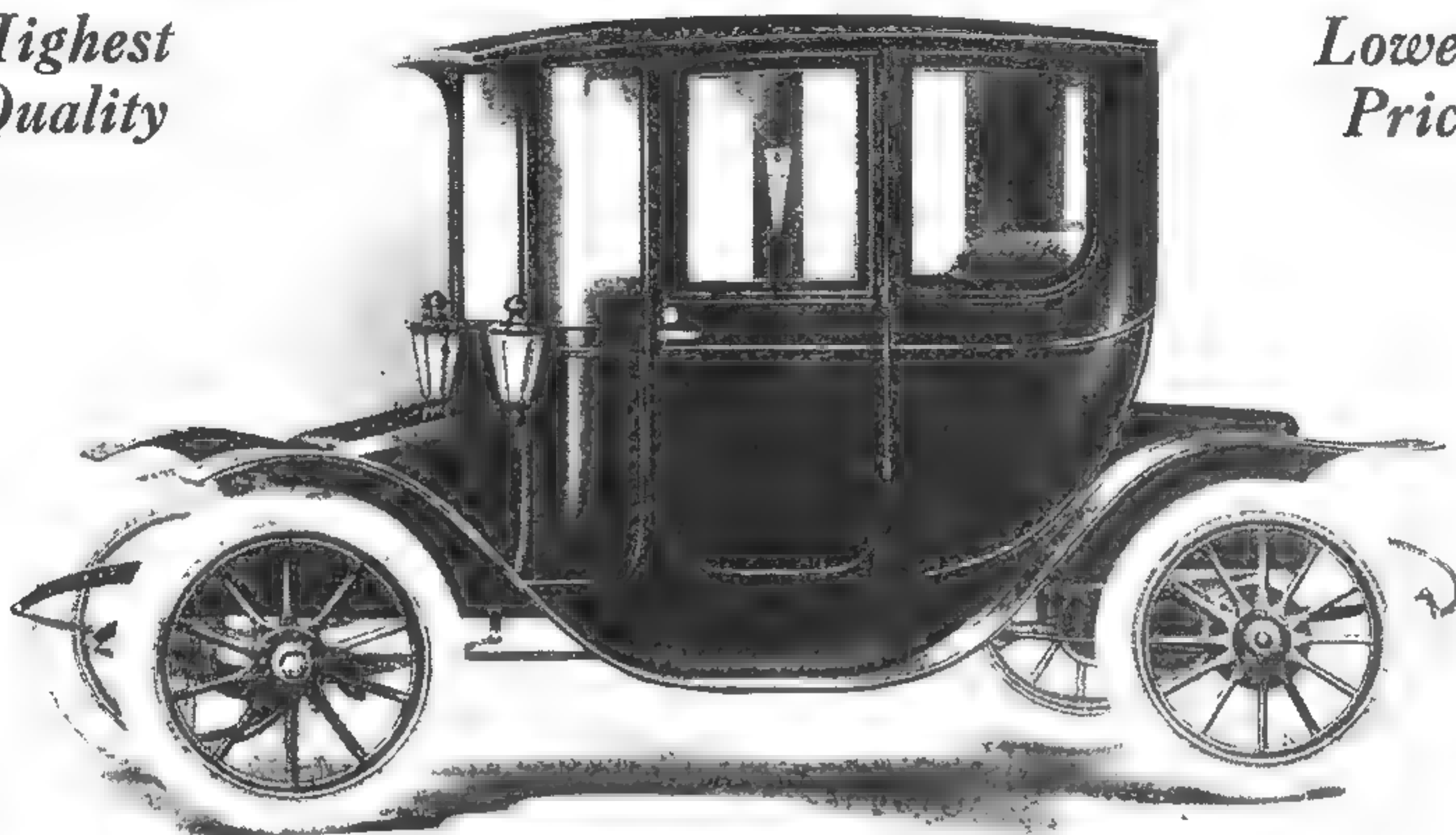


Equip your car with a Jericho and motor without anxiety. Jericho costs \$7—\$8—\$9—\$10, according to size. Sold by all dealers or direct from us.

Send for our free booklet about Jericho and other auto accessories

THE RANDALL-FAICHNEY CO., Boston, Mass.

*Highest
Quality*



*Lowest
Price*

Model M Coupé

\$1850

Here is the “Electric” every automobile dealer has been waiting for.

A price—a car—that will revolutionize the utility and sales of the Electric vehicle.

The Standard Electric

Long Wheel Base. All-sufficient power. Roomy body. Spring suspension for any tires. Non-vibrating steering apparatus. Drop frame. Straight line shaft drive. A perfect chassis. The best equipment possible.

The Car That Excels

The Car That Will Outsell

Write for Catalog “D”

The Standard Electric Car Co.
JACKSON, MICHIGAN

McIntyre

Builders of Vehicles for Forty Years

COMMERCIAL CARS

II—14 H. P., 2 cyl., \$650.00. Capacity, 800 lbs.	
VII—20 " " 2 " 1000.00. " 1500 "	
XIV—25 " " 2 " 1350.00. " 2000 "	
XXI—35 " " 4 " 1650.00. " 3000 "	
XXVIII—35 " " 4 " 2500.00. " 6000 "	

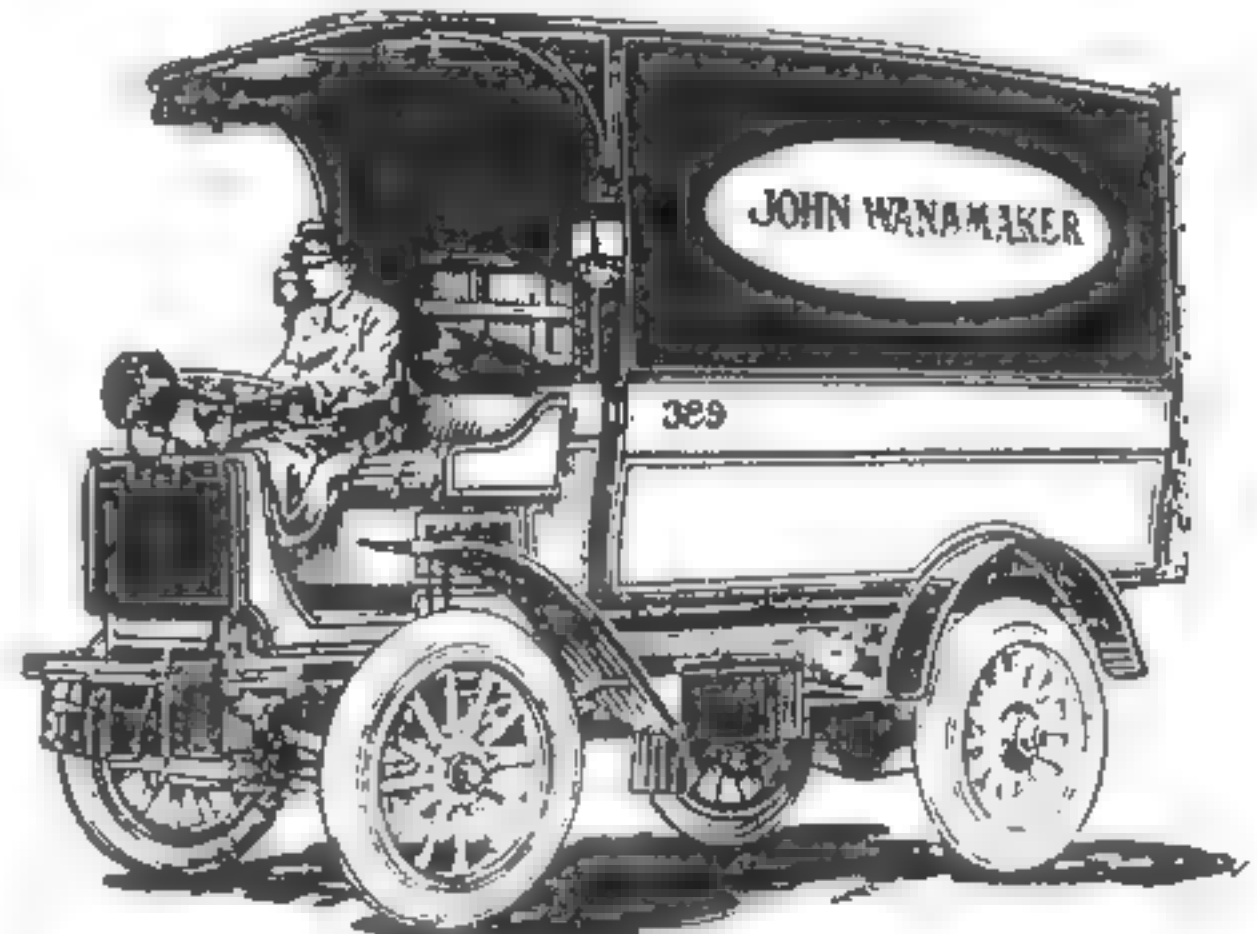
PLEASURE CARS

5-Pass., 4 cyl., 30-35 H.P.	\$1000.00
5- " 4 cyl., 40-45 " " Unit Power Plant.	1250.00

CUP WINNER—PERFECT ROAD SCORE—
PERFECT TECHNICAL SCORE in first annual
Commercial Car Contest by Chicago Motor Club

We Want a Few More Good Agents

W. H. McIntyre Company
Auburn, Indiana



FIFTY AUTOCARS

Two years ago John Wanamaker bought one of our commercial vehicles. A year later he bought several more. When we complete his present sixth repeat order, he will have fifty Autocar Delivery Cars.

Our product is endorsed by five hundred concerns, each using from one to fifty Autocars.

Fifty per cent. of our
sales are repeat orders.

"USED IN EVERY LINE OF BUSINESS"

Send for list of users and Catalog No. 4-E

THE AUTOCAR CO., Ardmore, Pa.

SALES AND SERVICE BUILDINGS
PHILADELPHIA NEW YORK
23rd & Market Sts. 428-430; 435-437 West 19th St.
BOSTON
Beacon St. & Commonwealth Ave.



Washington Motor Car Co. Business Wagon

This Business Wagon

runs smoothly, requires little attention, and
can always be depended upon because the

Morse Silent-Running Rocker-Joint Chain

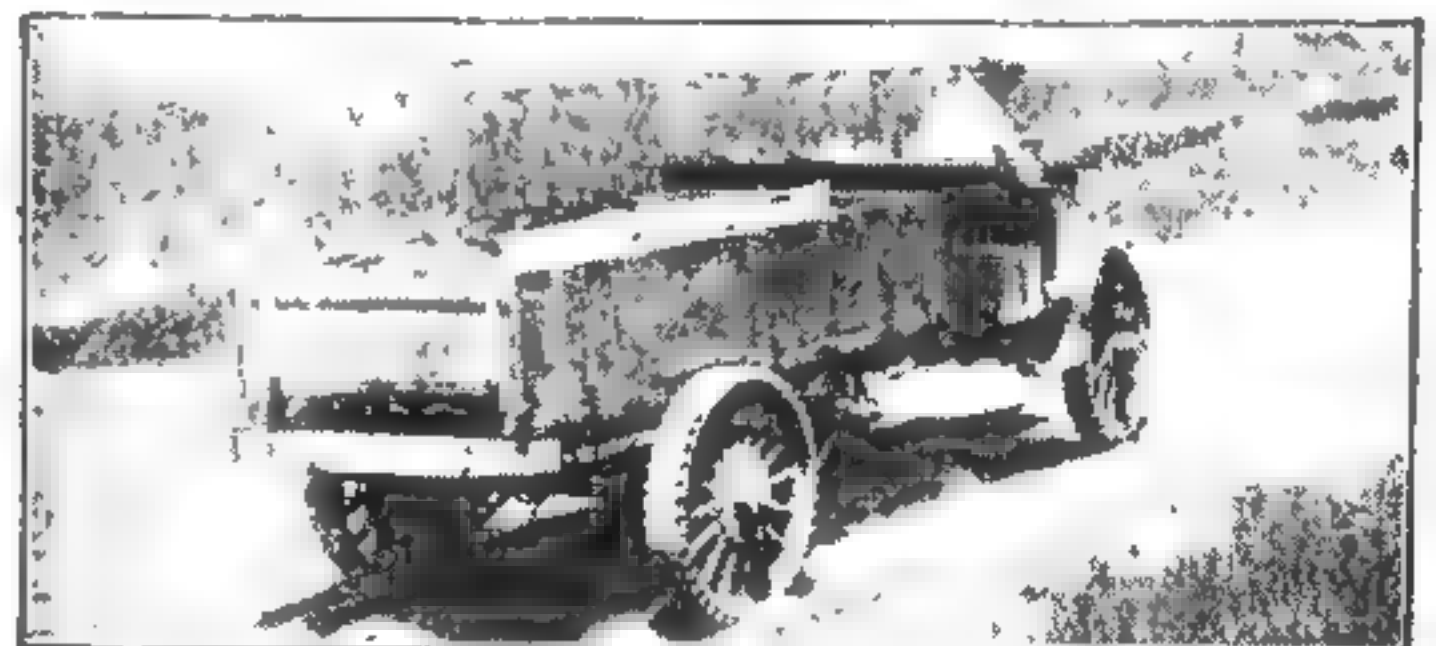
is used for power transmission. It is 99 per
cent efficient; requires the least lubrication.

Send for Catalogue No. 9

Morse Chain Co.
Ithaca, N. Y.

AVERY TRUCKS

Can Be Equipped With
Special Cast Steel Rim Wheels
For Country Hauling



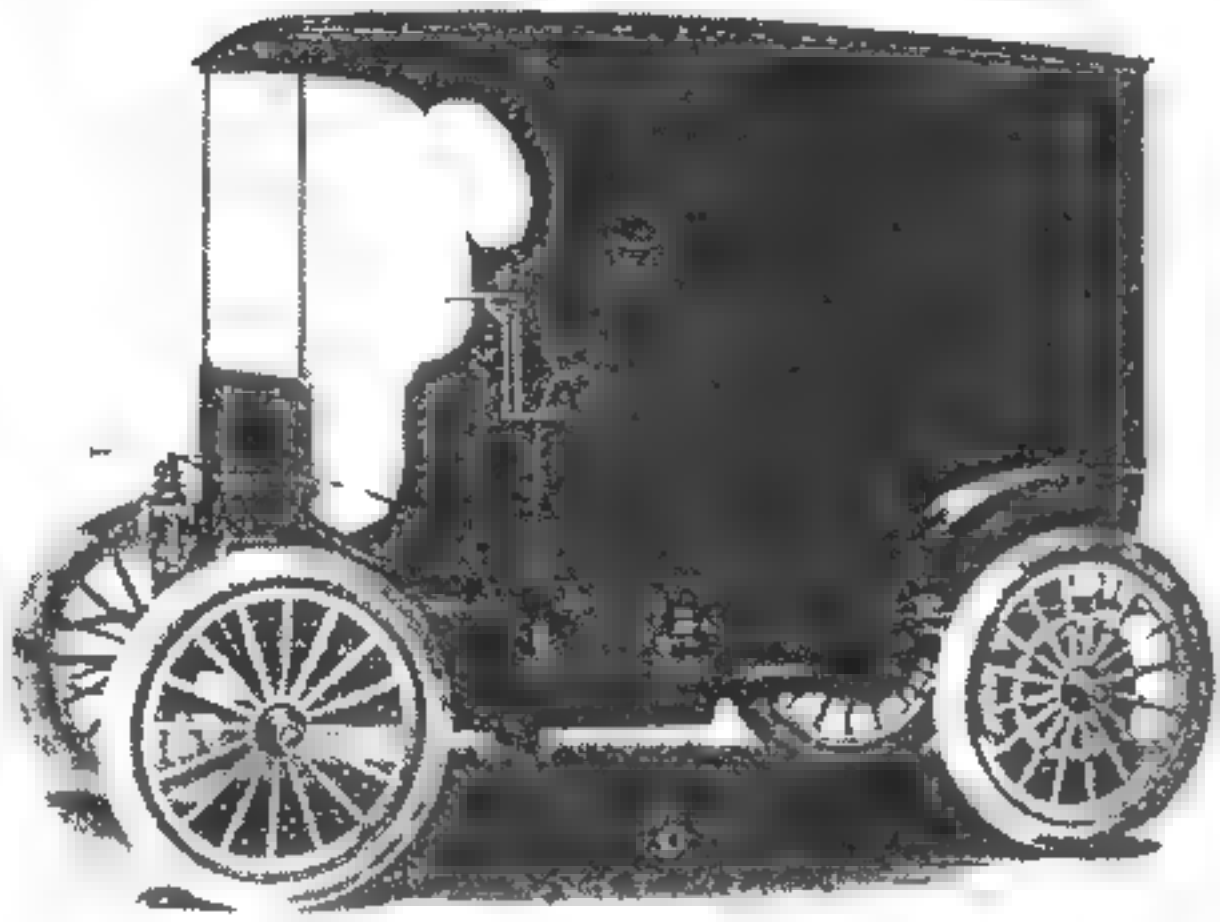
An Avery Truck will do either City or
Country Hauling—Hard Rubber Tires for
City, Cast Steel Rim Wheels for the Country.

The only Truck with Special Country Road
Wheels. A Large Number of Avery Trucks
have been hauling lumber, sand, flour, beer,
grain, hay, oil, milk, cream, fruits, etc. in
the country as well as in the city this year.

Find Out About The Avery Truck.
Has Other Original Features Also.

ADDRESS

THE AVERY COMPANY
952 IOWA STREET :: PEORIA, ILL.



Lincoln Light Delivery Cars

PRICES: \$575.00 to \$785.00

Small first cost

Small after cost

Simple to operate, and will give the service you have a right to expect.

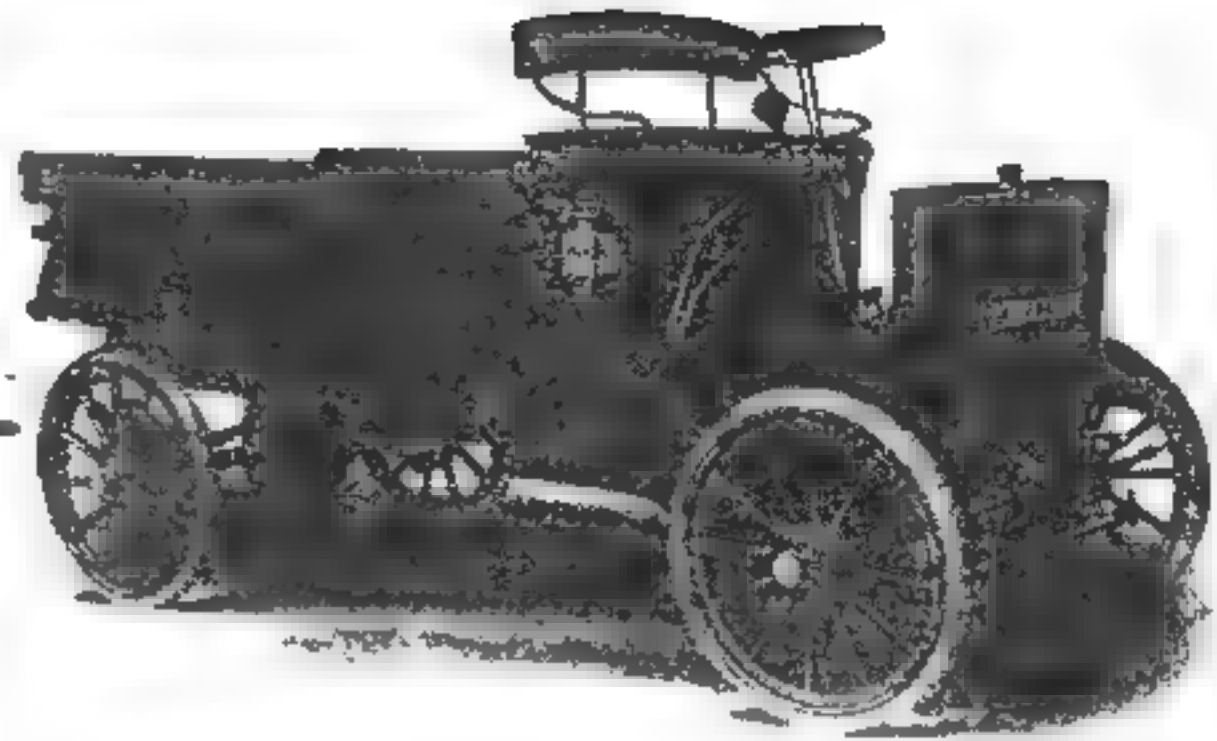
Furnished with either open or panel-top bodies.

We still have some valuable territory open for good agents.

WRITE FOR TERMS

LINCOLN MOTOR CAR WORKS

1352 W. Harrison St., CHICAGO, ILL.



Start a Sale Right

First impressions make or break. Your demonstration *must* be a perfect success. It *will* be, if you drive a Monitor. Clean-cut, trim, neat—a world of power in every piston stroke—it is the equal of any 1500 to 2000-lb. delivery car made. Guaranteed to be

"Designed Right"

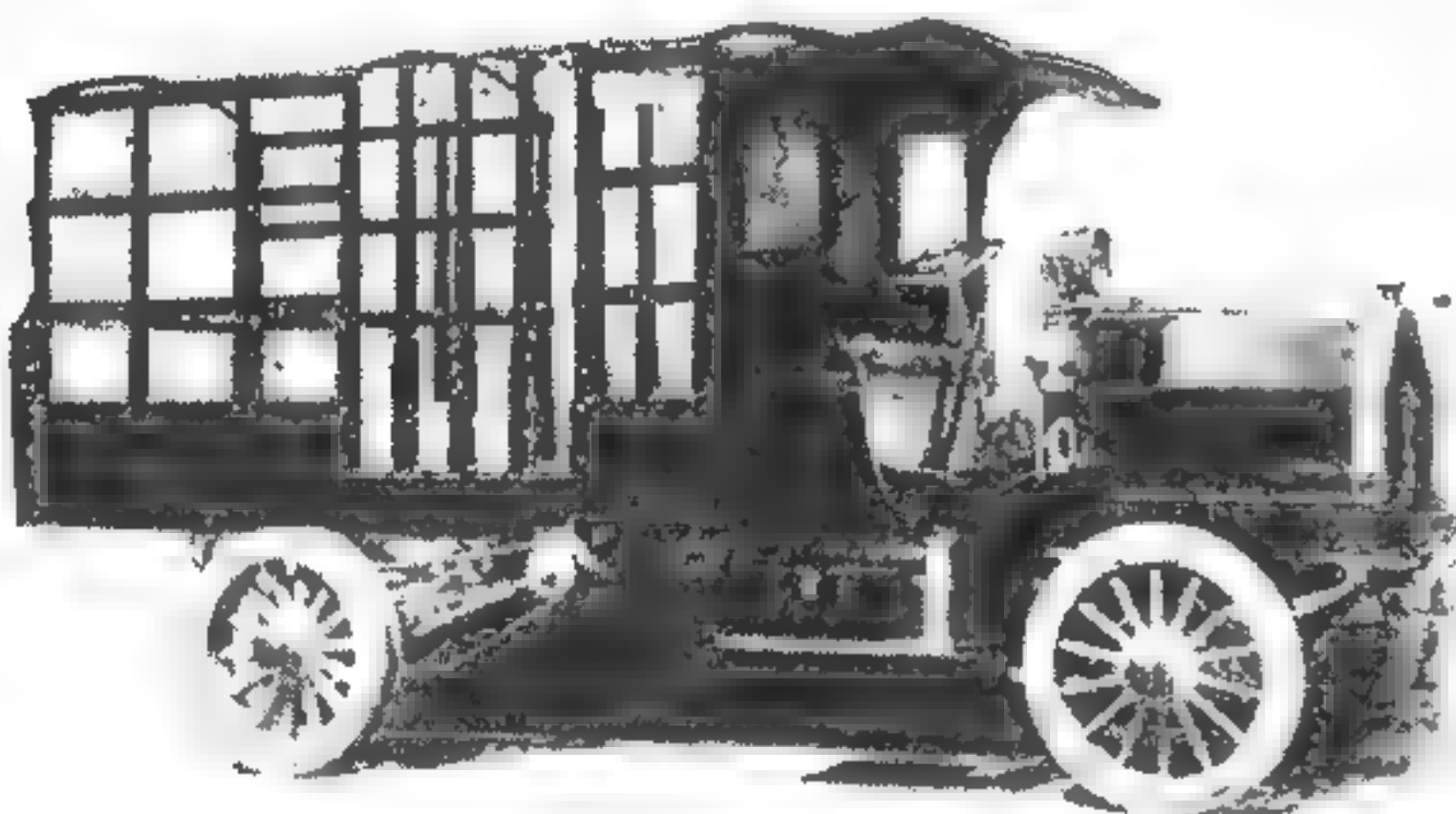
Built Right—Priced Right"

Users, send for new catalog plentifully illustrated in beautiful colors. *Dealers*, write for a "real" proposition.

Monitor Automobile Works

200 N. Academy St., Janesville, Wis.

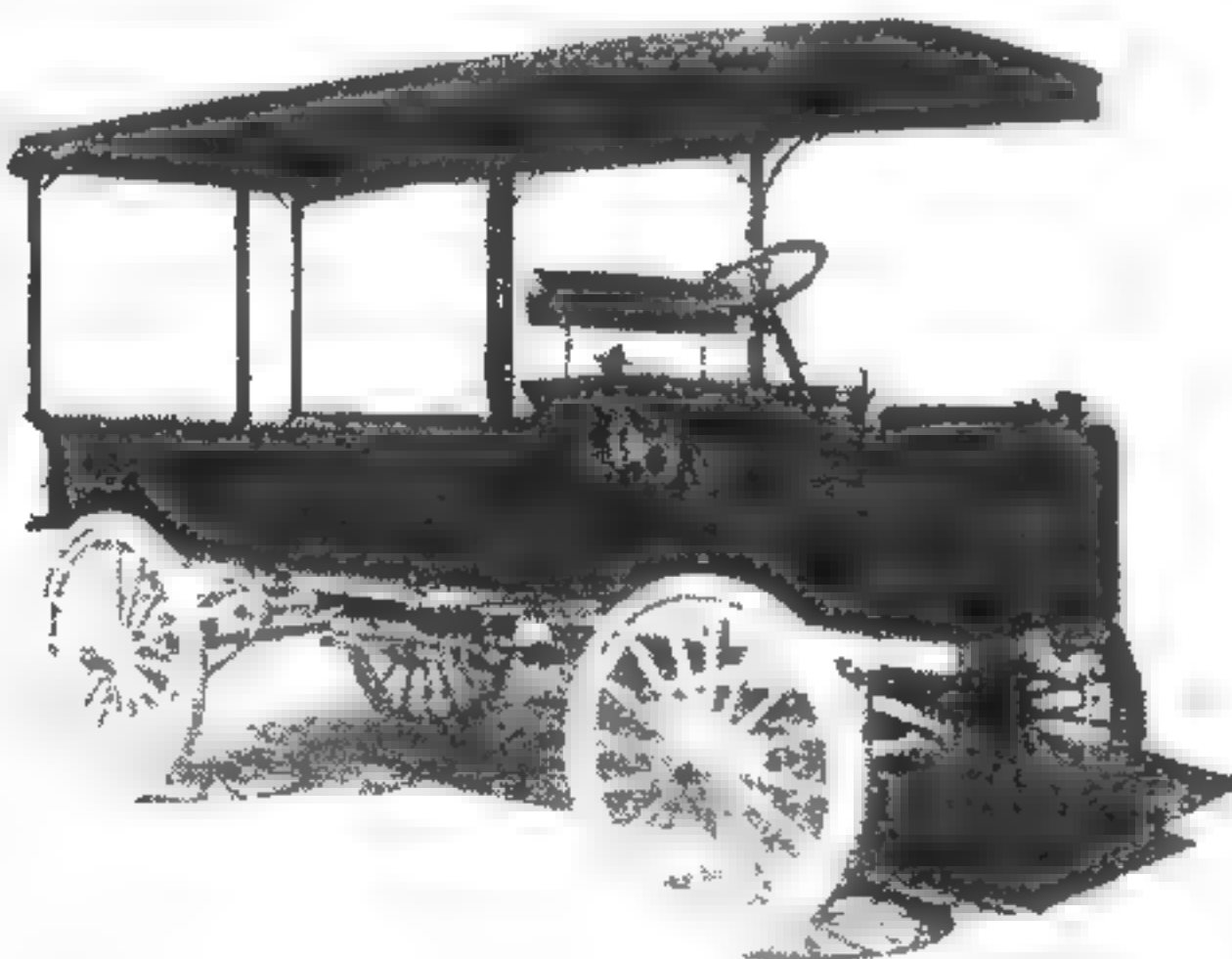
MONITOR



THE ATTERBURY

Commercial Cars are made in our own plant and by men of long experience who know how. Each and every part is carefully designed for the most severe conditions that commercial cars can be put to. Write us for complete catalogue on one, two, three and five ton trucks.

ATTERBURY MOTOR CAR COMPANY, Buffalo, New York



AUGLAIZE COMMERCIAL CARS

	700	pound	capacity,	2	cylinder,	5	x	4	motor
1200	"	"	"	2	"	5½	x	4	"
1500	"	"	"	4	"	3½	x	4½	"
2000	"	"	"	4	"	4½	x	4½	"

Any style body to suit purchaser will be made
Good, live agents wanted. Send for catalogue

THE AUGLAIZE MOTOR CAR CO., New Bremen, Ohio

1911

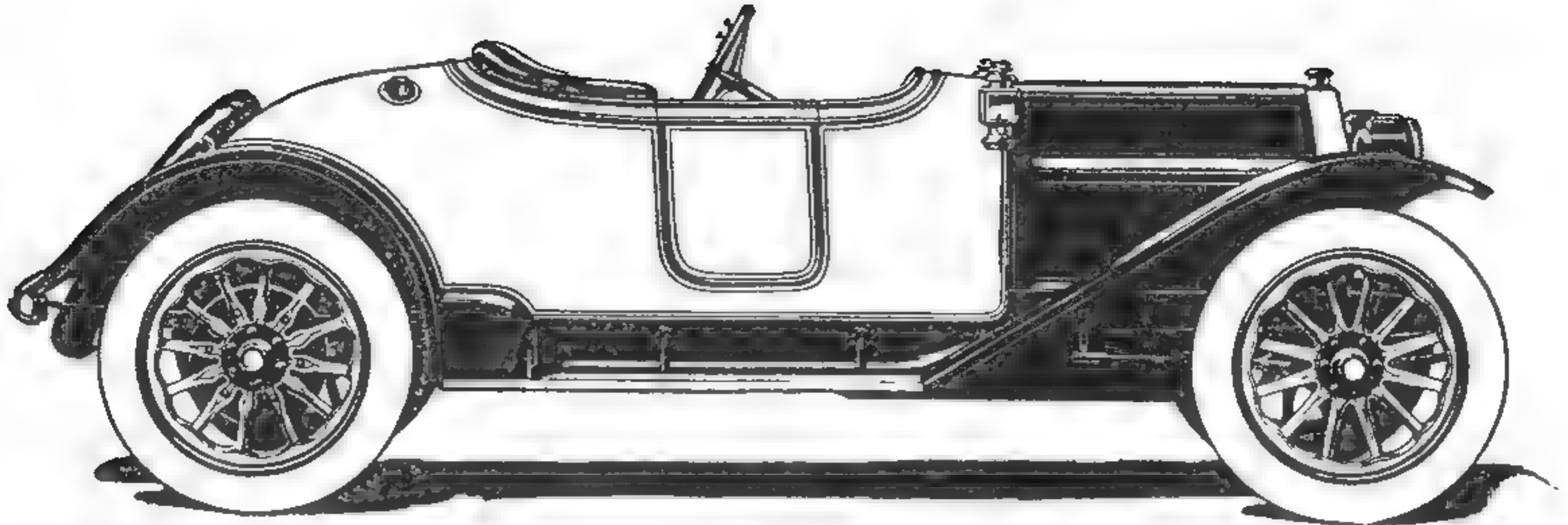
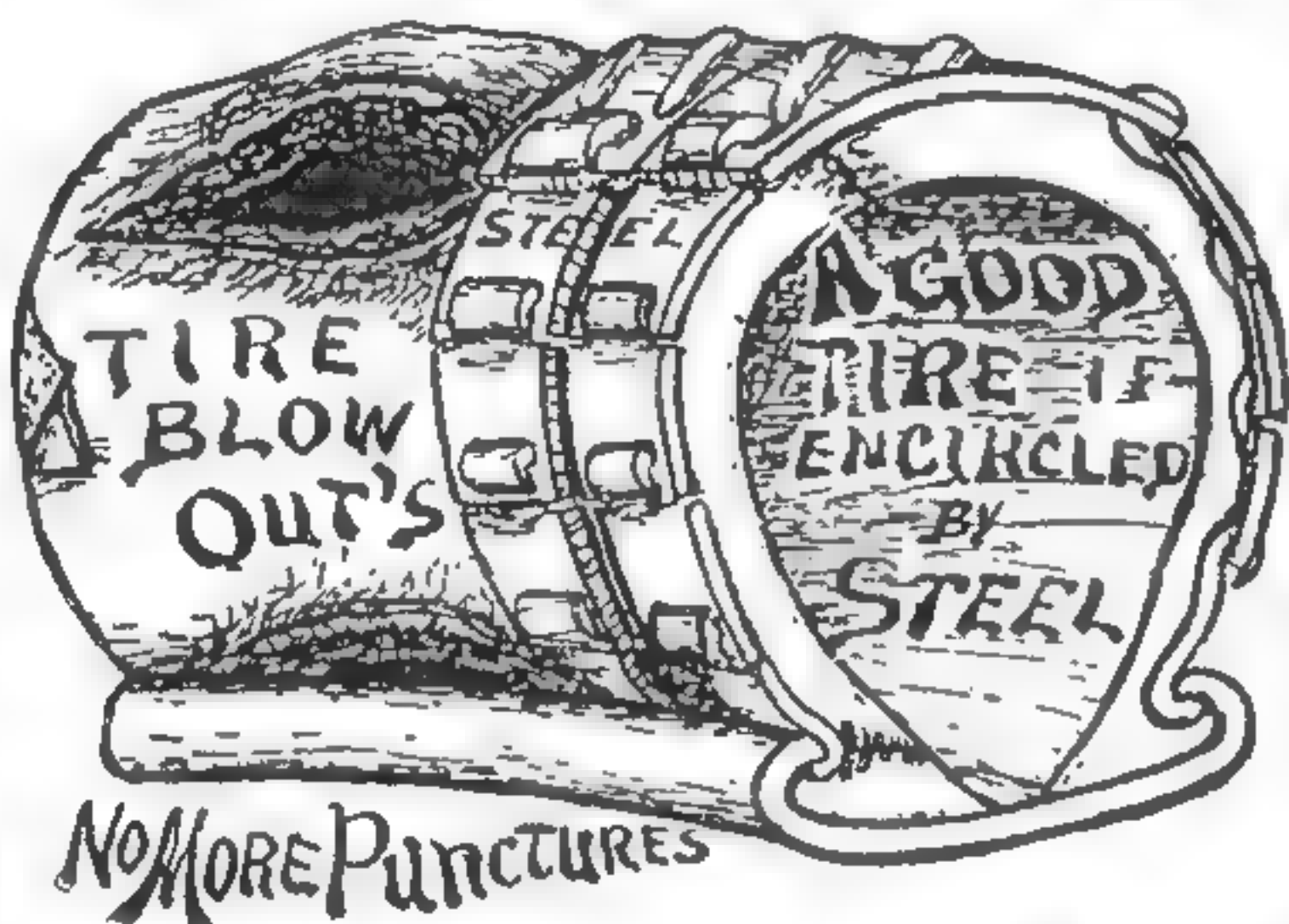


Fig. 2. Pathfinder Armored Roadster. Price \$1750. All mechanical parts of the car are carefully protected against dust, water and mud by running boards and sheet metal fenders and by an extra large sod pan. The motor is water-cooled, circulation being maintained by a pump.



**DON'T! THROW AWAY
YOUR OLD
BLOWN OUT, RIM CUT
PUNCTURED
TIRES**

COVER THEM WITH
KIMBALL STEEL PROTECTORS

INSTEAD—AND USE THEM FOREVER

Your Good Tires Also Need Protection

Let us send you our circular with introductory prices.

KIMBALL TIRE CASE CO. 163 Broadway
Council Bluffs, Ia.

While They Last

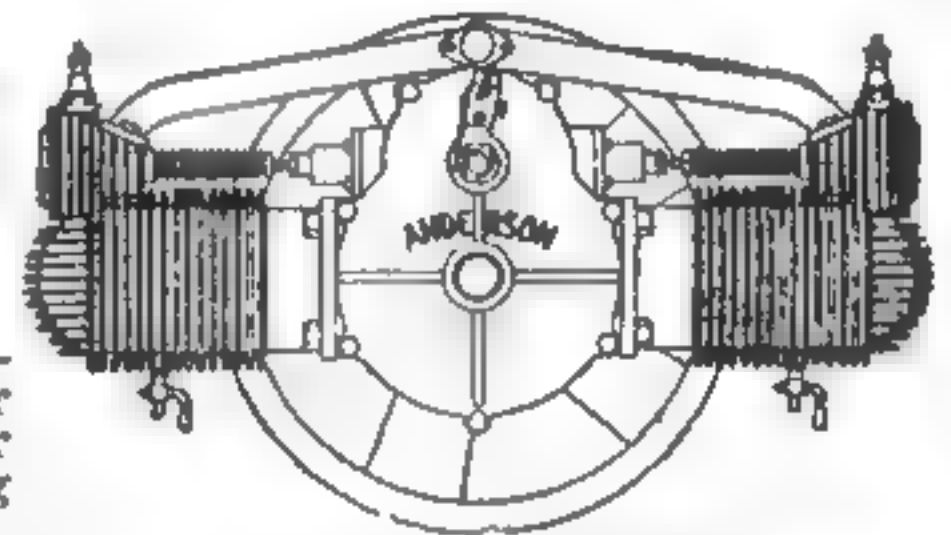
Two Cylinder

4 x 4

Air Cooled

\$50 each

Owing to the increased demand for our Marine Engines we find it necessary to give up the manufacture of our other types. We offer for sale also the following Patterns:



4x4 and 4 1-2 x 4 1-2 D. O. Air Cooled
4x4 1-2 Four Cylinder Auto Type
12x18 Single " Stationary

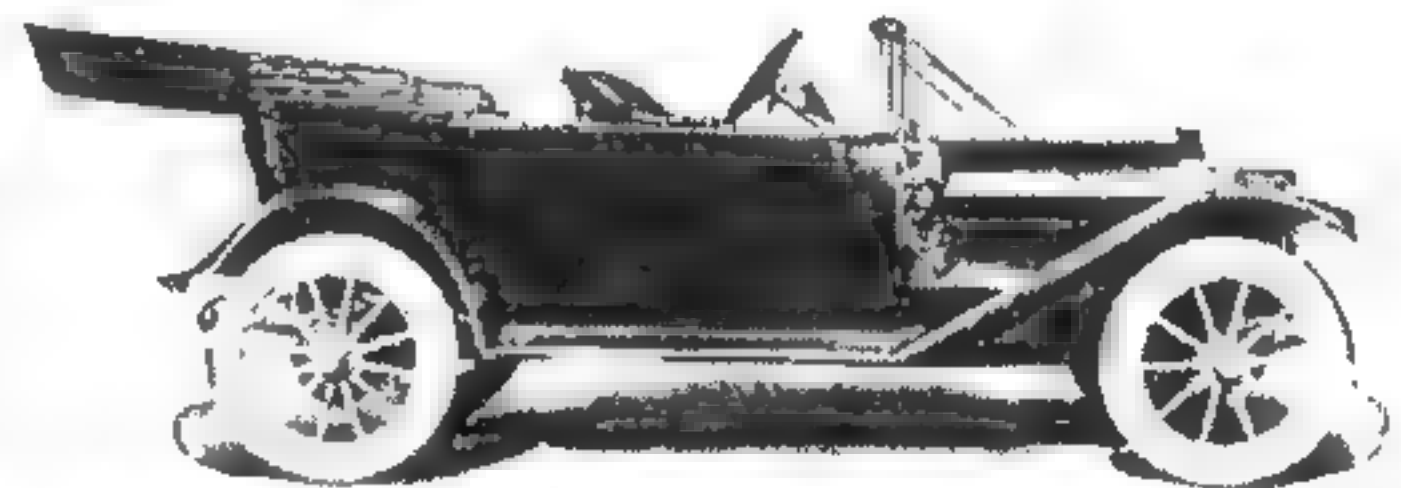
ANDERSON ENGINE CO., Shelbyville, Ill.

THE



"SIX"

Price \$1850



**The First Chrome-Nickel Steel Car Ever
Offered at a Moderate Price**

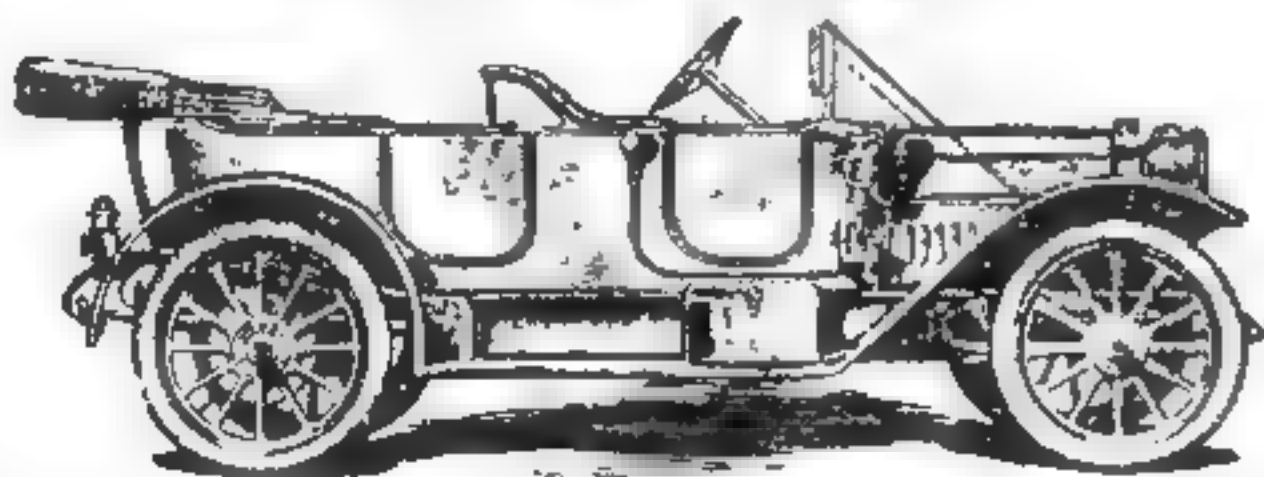
No one who has ever driven a "Six" will question the remarkable efficiency, power and smoothness of operation offered in this type. There is an overlap of power impulses and a consequent smooth flow of energy as uninterrupted as the flow of water from a pipe.

Six-Cylinder, 48 h.p., Long-Stroke Motor; Chrome-Nickel Steel throughout; 36 x 4-inch Tires; Demountable Rims; Cellular Radiator; 126½-inch Wheel-base; Everitt Self-Starting Device, Top, Windshield and Speedometer included; Dual Ignition; manufactured complete in one factory.

The Metzger Motor Car Co.
103 MILWAUKEE AVE., DETROIT, MICH.

Oakland

"The Car with a Conscience"

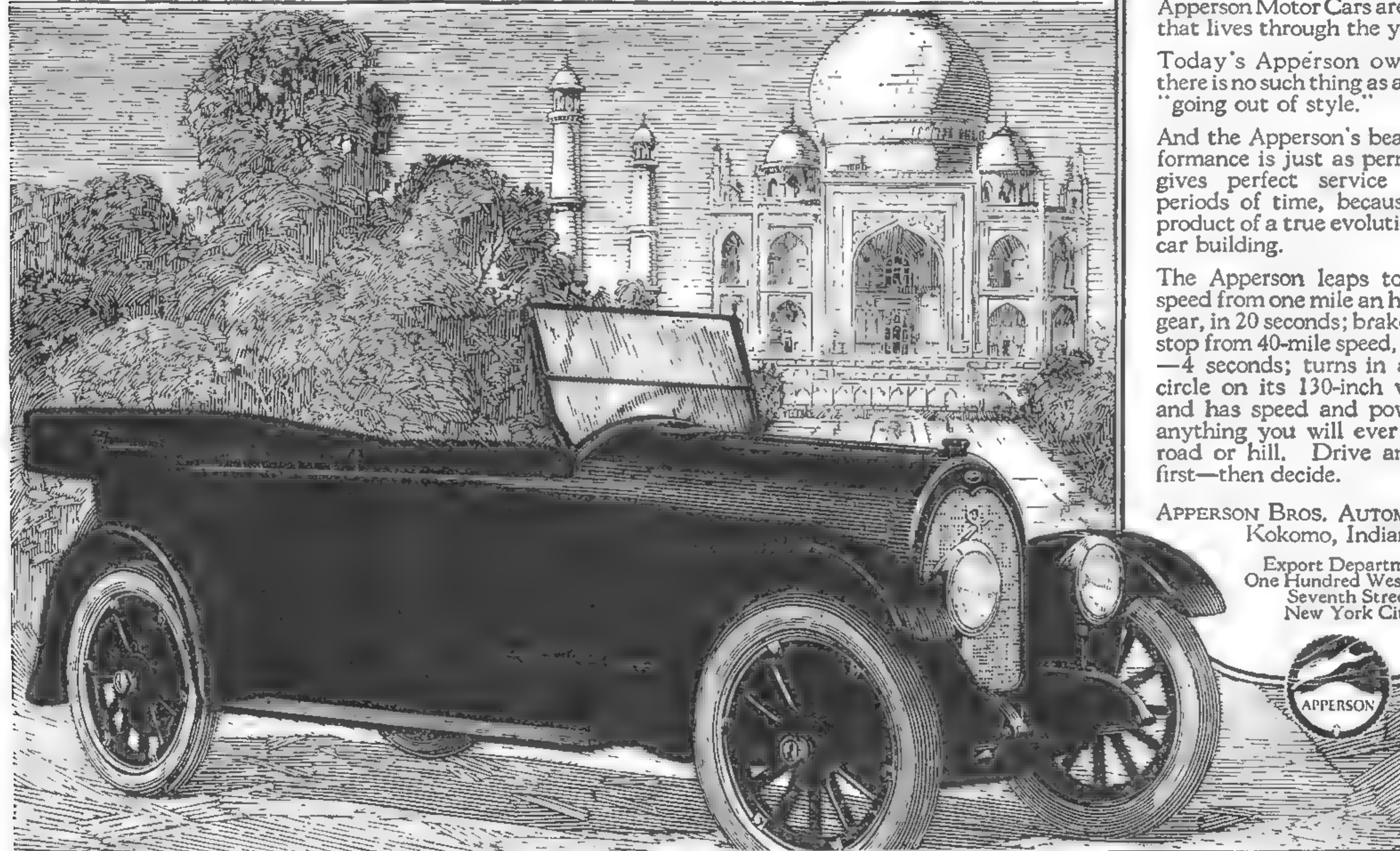


The New Model "40"—\$1450 (Top and Windshield extra)
OUR 1912 LINE is built on four chassis 30 H.P. to 45 H.P.
Large variety of body designs, prices from \$1000 to \$3000.

OAKLAND MOTOR CAR CO., 2875 Oakland Ave., Pontiac, Michigan
Write for advance catalogue

APPERSON

THE EIGHT WITH EIGHTY LESS PARTS



BEAUTY THAT LASTS

Apperson Motor Cars are of the type that lives through the years.

Today's Apperson owners know there is no such thing as an Apperson "going out of style."

And the Apperson's beauty of performance is just as permanent. It gives perfect service over long periods of time, because it is the product of a true evolution in motor car building.

The Apperson leaps to a 40-mile speed from one mile an hour, in high gear, in 20 seconds; brakes to a dead stop from 40-mile speed, in 40 yards, —4 seconds; turns in a 38¼-foot circle on its 130-inch wheel base; and has speed and power beyond anything you will ever require on road or hill. Drive an Apperson first—then decide.

APPERSON BROS. AUTOMOBILE CO.
Kokomo, Indiana

Export Department:
One Hundred West Fifty-
Seventh Street,
New York City



1920

DYNAMIC AMERICA DEMANDS RESULTS. APPERSON PRODUCES THEM

A "Show Me" Stunt



ON JUNE 6TH a Flanders "20" Racy Roadster, strictly stock model in every detail, started from the City of Quebec, Canada, and will drive thru to the City of Mexico, a distance of about 4,500 miles as near as we can estimate it from railroad time tables. We shall make a bee-line from Quebec to Mexico. Shall not pick out good roads, nor bad, but simply go straight there.

THERE WILL BE NO DEFINITE SCHEDULE, but the driver's instructions are, to push her ten hours every day until he has reached the end of the route. She will encounter every kind of roads—mud and mountains, sand and gravel, prairie trails, and—most difficult of all—several hundred miles of roads that at this season of the year are being worked.

"UNDER THREE FLAGS" is the title we have given this tour, as it crosses three countries—Canada, United States and Mexico. The car is driven by W. J. Lane, and Paul H. Bruske, formerly of Detroit Times, is the other passenger.

"WHAT IS IT ALL FOR?" is one of the questions that arise in your mind when you first read about this trip of the Flanders "20." The car is not a pathfinder for any special tour—the long run from Quebec to the City of Mexico is too strenuous to even be considered for any reliability or sociability tour.

HERE'S THE REASON: The E-M-F Company, manufacturers of the Flanders "20," is sending the car across three countries on a "show me" publicity stunt—road performance, in other words.

TO GO BACK A YEAR, YOU WILL REMEMBER an E-M-F "30" was sent over the worst 2,600 miles of road any car ever covered (as pathfinder for the Glidden Tour), and closed the mouths of all competitors. The E-M-F "30" was new and untried. Only its makers realized its ability. Rival manufacturers were jealous of the demand that was created for the car, even before the first one had been delivered to a customer. It was an innovation in the automobile world to produce a thirty horse power car such as the advance specifications of the E-M-F "30" showed, for \$1,250.

COMPETITORS SAID IT COULD NOT BE DONE—the car would not stand up—and many other things. Well, the successful road performance of the "30"—a stock car—on the Glidden Pathfinding Trip, where every part was subjected to the severest stress, proved up its advertised qualities. Today there are over 13,000 E-M-F "30" cars on the roads, driven by satisfied owners—continuing the demonstration and creating a demand far in excess of our manufacturing possibilities.

THE FLANDERS "20" IS NOW at a similar stage of development. A car that is as big a sensation as Flanders "20" excites the hatred of competitors to a vastly greater extent than one of which the

public knows little and cares less. Flanders

"20" has made it hard sledding for other makers who are selling cars for less than \$1,000, and they are doing everything they can to retard its progress and dim its popularity. All kinds of reports are being circulated, and if we held back and let them have it all their own way, doubtless they would after a while make some people believe these reports.

NEWSPAPER ADVERTISING ALONE won't meet these conditions. Before the car is actually built the advertising manager can look over the drawings, talk with the engineers and learn what kind of a car they are going to build, and, believing in them, wax enthusiastic, and from that enthusiasm he can write what our rivals call a "blue sky advertisement," that will sell the product without a demonstration. That is just what has happened. But, when the car itself has arrived, the average man wants a demonstration.

IF WE COULD SHIP 1,000 FLANDERS "20's" A DAY we could soon have enough of them in the hands of owners to do their own demonstrating—just as the 13,000 E-M-F "30" cars are doing now. Of course this is impossible. The output has to be allotted impartially, and the result is that one or two cars arrive in each town and on the performance of these two cars rests the reputation of the Flanders "20" from that time on. If they are fortunate in getting into the hands of people who know how to handle an automobile, well and good. If they do not, and get into the hands of inexperienced drivers—then the dealer must look to his laurels.

JUST AT THIS TIME the one kind of advertising that meets the condition is that which we term "show me" publicity.

WE ARE GOING TO put Flanders "20" thru the wickedest test that any automobile, big or little, has ever been subjected to.

WE ARE GOING TO SHOW THE WHOLE WORLD that this car is just as good as we said it would be; we are going to stop the mouths of competitors by proofs piled so high they won't be able to contradict them; we are going to arm every customer as well as every dealer with arguments in favor of Flanders "20" by demonstrating its prowess.

FLANDERS "20" OCCUPIES FIRST POSITION in the preference of buyers today and we propose to keep it there. Word advertising would be all right, but we think this "show me" stunt is going to place Flanders "20" in the class of \$5,000 cars for reliability and sturdiness, because we know she will do the trick.

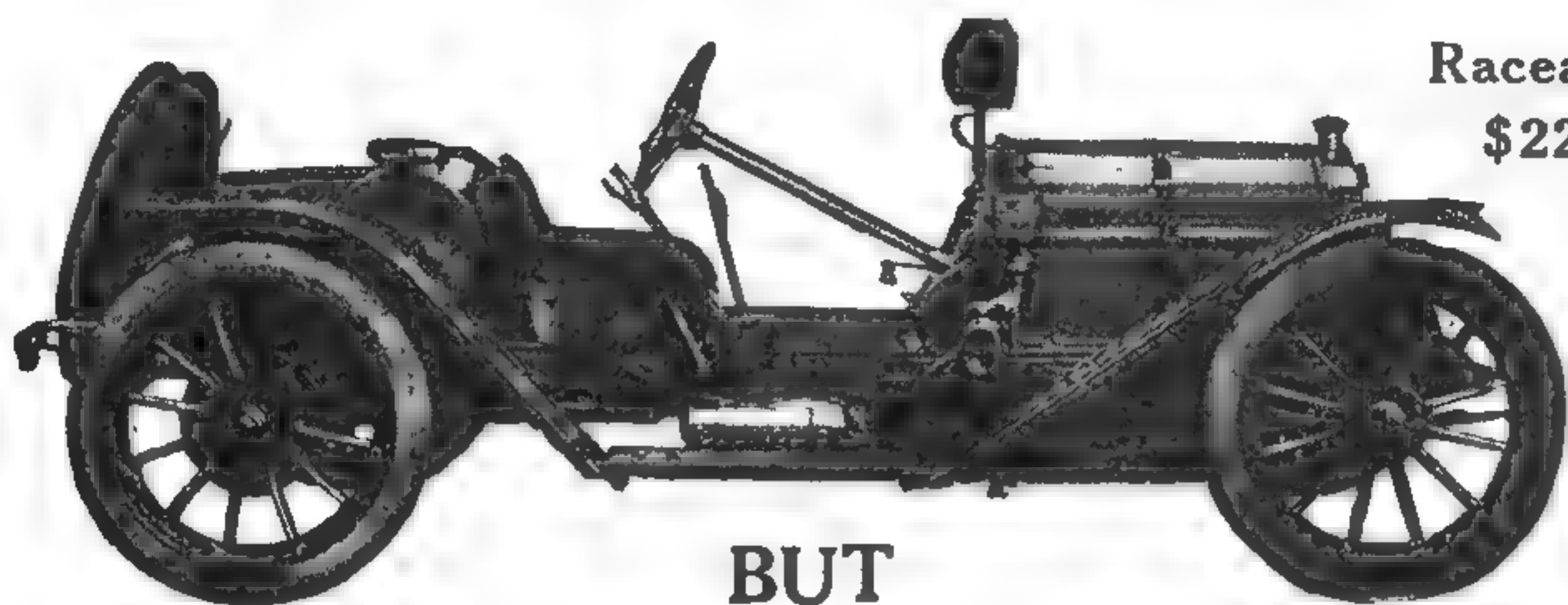
E-M-F Company, Automobile Manufacturers, Detroit, Mich.

NOTE: In this Scrapbook, Studebaker is mentioned as maker of E-M-F and Flanders cars. Perhaps it should be stated that Studebaker at first was the sales organization handling these cars. All Studebaker dealers and distributors handled E-M-F and Flanders cars and they later became known as Studebaker-E-M-F and Studebaker-Flanders cars.

THE MERCER

Winning First and Second in the Light Car
Race at Elgin

Was Like Taking Candy From the Baby



Raceabout
\$2250

BUT

To land in **THIRD** place for the stock car champion-
ship with a 300 cubic inch car in the big race

WAS SOME ACHIEVEMENT

When only six minutes separated
the Mercer from the winner.

600 Cubic Inch Class

One MERCER entered.....	One MERCER finished.
One LOZIER entered.....	Did not finish.
Two NATIONALS entered.....	One NATIONAL did not finish.
Two SIMPLEXES entered.....	Neither finished.
One POPE-HARTFORD entered.....	Did not finish.
Three ALCOS entered.....	One did not finish and one outrun.

If you want to hear more concerning the highest grade light car
manufactured, communicate with

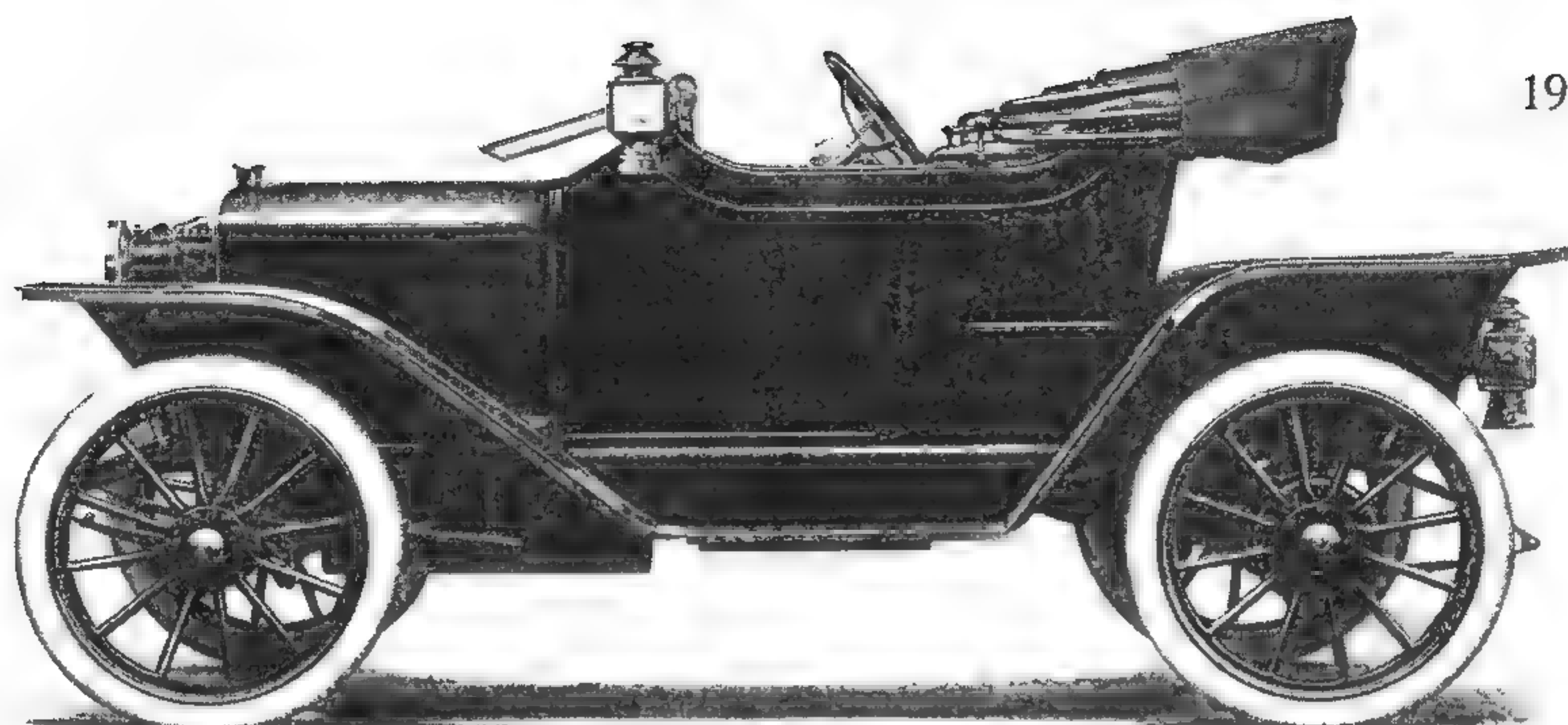
MERCER AUTOMOBILE COMPANY

TRENTON, NEW JERSEY

DISTRIBUTORS:

Fred. S. Smith, 28 Columbus Ave., Boston, Mass.
Whiting Motor Co., 1802 Broadway, New York City
Savannah Motor Car Co., 309 Bull St., Savannah, Ga.
The Auto Co., 34 James St., Atlanta, Ga.
Schillo Motor Sales Co., 945 East Dakin St., Chicago, Ill.

Fred. M. Powell, 1433 Broadway, Seattle, Wash.
Roberts Motor Car Co., 212 Hogan St., Jacksonville, Fla.
Premier Sales Co., Beatty and Mignonette Sts., Pitts-
burgh, Pa.
Carroll A. Haines & Co., 2214 Spring Garden St., Phila.



1911

\$700

**F.O.B. Detroit
Fully Equipped**



**Long Stroke Motor
Three Speeds
Enclosed Valves
Bosch Magneto**

We Want Dealers For R. C. Hupp's New "Twenty-Five"

In the new "R.C.H." Twenty-Five, Mr. Hupp has produced a car that has no rival below the \$1500 class of cars.

Over half the 1912 output of 5000 cars has already been snapped up by progressive dealers.

Some very desirable territory is yet open however. Interested dealers are urged to get in touch immediately with our nearest branch.

SPECIFICATIONS

MOTOR—4 cylinder, 3½ inch bore, 5 inch stroke. Cylinders cast en bloc. Two bearing crank shaft. Timing gears and valves enclosed. Three point suspension.

DRIVE—Left hand. Irreversible worm gear, 16 inch wheel.

CONTROL—Center lever operated through H plate, integral with universal joint housing just below.

SPRINGS—Front, semi-elliptic; rear, full-elliptic and mounted on swivel seats.

FRAME—Pressed steel channel.

AXLES—Front, I-Beam, drop forged. Rear, semi-floating type.

BODY—English type, extra wide front seat.

WHEEL BASE—86 inches.

TIRES—30 x 3 inches all around.

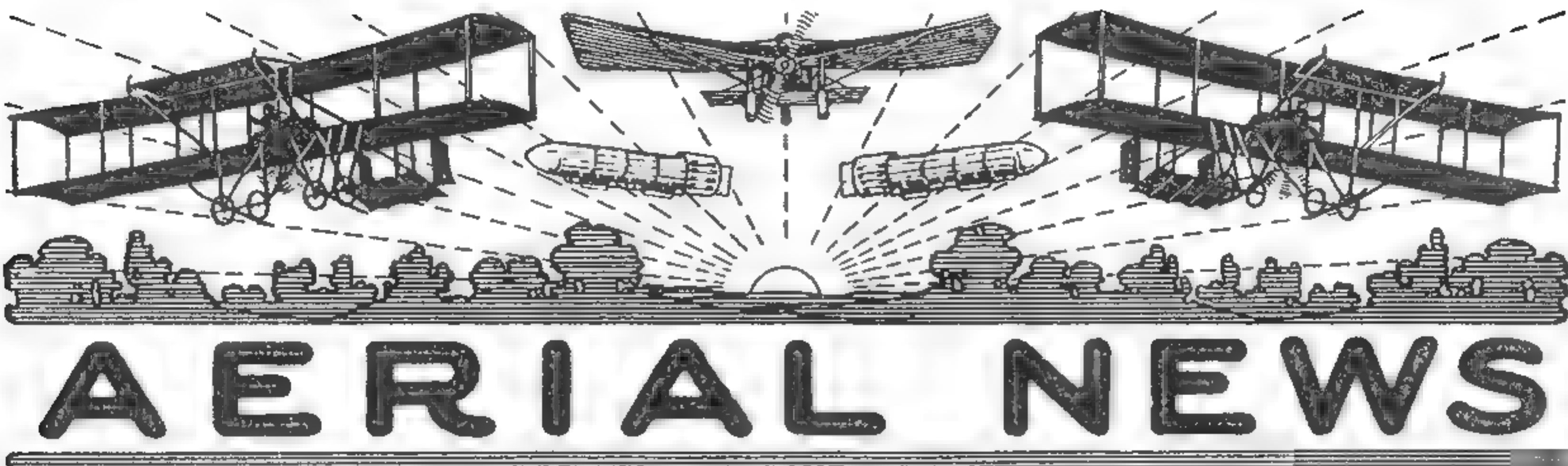
Full equipment includes top, windshield, gas lamps and generator. Equipped to carry 4 passengers—\$750.

102 Lycaeste St.

HUPP CORPORATION

Detroit, Mich.

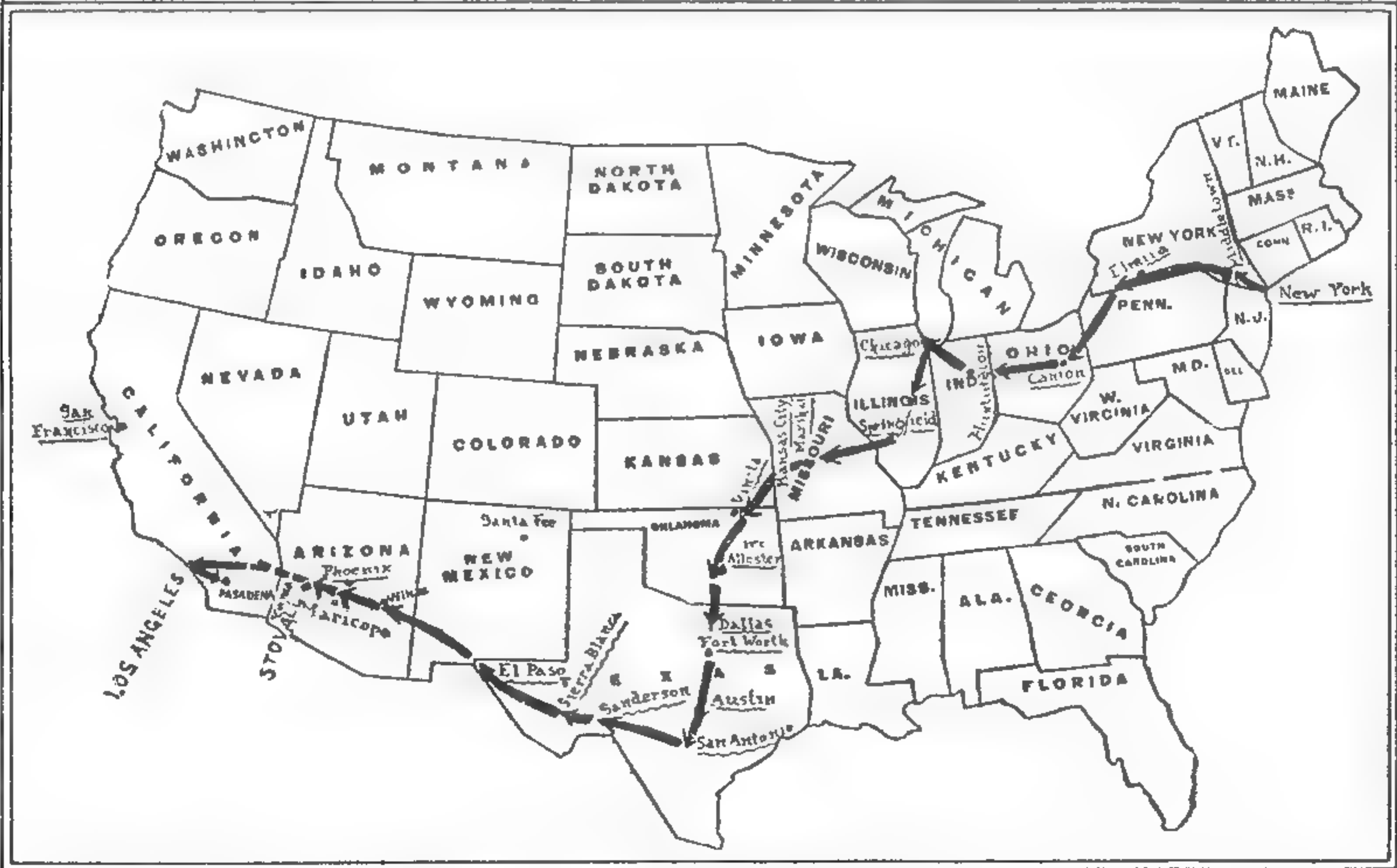
BRANCHES :—Buffalo—1225 Main St. Chicago—2615 Michigan Ave. Cleveland—1992 E. 13th St. Denver—1620 Broadway. Detroit—Woodward and Warren Aves. Kansas City—3401 Broadway. Los Angeles—816 S. Olive St. Minneapolis—1334 Nicollet Ave. Philadelphia—330 N. Broad St. Boston. Atlanta.



Rodgers Completes Transcontinental Flight

With his descent at Pasadena, a suburb of Los Angeles, Cal., November 5th, Calbraith P. Rodgers ended the first coast-to-coast aeroplane flight and established the greatest cross-country record in the history of aviation. Rodgers started from Sheepshead Bay race track, New York, for the Pacific Coast on September 17th, and covered 3,220 miles, which more than doubled the previous world's record of 1,265 miles, made by Harry N. Atwood in his St. Louis to New York flight. His journey to the coast was full of accidents in which his life was endangered several times, and weather conditions and delays prevented him from winning the William R. Hearst prize of \$50,000, for which he originally started as a competitor. Although practically finishing his trip on Sunday, Nov. 5th, Rodgers started on his final bird hop on the 12th, and met with the most serious mishap of his trip. Rodgers expected to finish at Long Beach. Half way on the twenty-three mile flight his machine fell 100 ft., landing in a plowed field.

The aviator was badly bruised, but no bones were broken. His aeroplane was wrecked. The Hearst prize was withdrawn when the time limit expired on October 10th, and after Rodgers had reached Marshall, Mo., 1,398 miles from New York. The conditions under which the prize was offered provided that the flight must be made in 30 days and that it must be completed within one year after the offering of the prize, which was October 10, 1910. Despite the withdrawal of the prize, Rodgers continued his trip to the coast, the distinction of being the first to cross the United States in an aeroplane being the only incentive, his only financial reward consisting of the purses received at country fairs along the route. In his trip across the continent, Rodgers made several flights of over 200 miles a day. He covered the greatest number of miles on October 14, when he flew from Kansas City to Vanita, Okla., 250 miles. The flight was made with stops at Moran and Russell Creek, where he took on a sup-



Rodgers' Route to the Pacific.

ply of gasoline and oil. His longest flight without a stop was made on November 3, when he flew from Stovall to Imperial Junction, Cal., 133 miles.

Rodgers is one of the tallest aviators in the world, standing 6 ft. 4 in. in height. He is a member of the New York Yacht Club, played on the Columbia and Virginia University football teams and made a motorcycle trip from Buffalo to New York in a day. He won the duration prize during the Chicago aviation meet in August and was the third entrant in the transcontinental aeroplane race for the Hearst prize. The other entrants were Robert G. Fowler and James Ward. Fowler left Golden Gate Park, San Francisco, September 11, and up to November 1 had reached Tucson, Ariz., where he met Rodgers for the first time. Ward began his flight from Governor's Island, on September 14, and gave up his journey to the coast when his biplane was wrecked at Elmira on September 23.

Summary of Rodgers' Flight.

Started from Sheepshead Bay, New York, at 4:25 P. M., Sept. 17.

Reached	Miles.	Dates.
Middletown, N. Y.	84	Sept. 17
Callicoon, N. Y.	179	Sept. 21
Elmira, N. Y.	289	Sept. 22
Canisteo, N. Y.	315	Sept. 23
Salamanca, N. Y.	442	Sept. 24
Canton, O.	646	Sept. 28
Rivarre, Ind.	851	Sept. 30
Huntington, Ind.	887	Oct. 1
Hammond, Ind.	1,010	Oct. 5
Chicago, Ill.	1,199	Oct. 8
Kansas City, Mo.	1,482	Oct. 11
San Antonio, Tex.	1,789	Oct. 12
Sanderson, Tex.	2,069	Oct. 26
Sierra Blanca	2,291	Oct. 28
El Paso, Tex.	2,381	Oct. 29
Willcox, Ariz.	2,603	Oct. 31
Maricopa, Ariz.	2,780	Nov. 1
Stovall, Ariz.	2,920	Nov. 2
Imperial Junction, Col.	3,053	Nov. 3
Banning, Cal.	3,153	Nov. 4
Los Angeles, Cal.	3,220	Nov. 5

Beats previous world's record by 1,955 miles.
Best previous cross-country record; Harry N. Atwood, St. Louis to New York flight, 1,265 miles
Best day's flight, 250 miles, from Kansas City, Mo., to Vinita, Okla.

PROFESSOR MONTGOMERY KILLED

Prof. John J. Montgomery, inventor of an aeroplane and an electrical expert, was killed Oct. 31, at San Jose, Cal., while experimenting with a new glider of which he expected great things.

Prof. Montgomery lost control of the machine and fell about thirty feet.

Montgomery had been at work along the same lines as the Wrights, seeking a stabilizing device to make flying safe. With his new glider he went to the foothills about five miles south of San Jose to conduct his experiments in private.

While the public did not hear much of Montgomery, he is credited with having achieved "the greatest single advance in the history of aerial navigation." On April 29, 1905, at Santa Clara, Cal., a 45-pound glider of his design was carried up to a height of 4000 ft., attached to a hot air balloon. The parachute jumper, Daniel

Maloney, a pupil of Montgomery, then cut loose from the balloon, and glided to earth in perfect control of his course. Circles, figure eights, dizzy spirals and dips were performed, and after having covered eight miles in twenty minutes, Maloney landed three-quarters of a mile from the start, so lightly as to not even jar him, though he was compelled to land on his feet in the absence of a landing gear.

The savants of aviation of those days were quick to appreciate the magnitude of the feat and the importance of Montgomery's contribution to the science, practically a solution of the vital problems of controlling flight and maintaining equilibrium. Alexander Graham Bell did not hesitate in awarding Montgomery due credit, and said that "all subsequent attempts in aviation must begin with the Montgomery machine." The general public, however, did not appreciate the size of the performance, and apparently regarded it but as an unusual parachute jump.

THE ARMY WRIGHT IN MUSEUM

The Wright aeroplane in which Orville Wright finally qualified at Fort Myer and demonstrated conclusively the possibility of actual flight in heavier than air machines in 1908 and 1909 has been received at the National Museum, Washington, where it is to be retired as an exhibit along with the telegraph instruments of Morse and the original telephone apparatus of Professor Bell. The government paid \$3000 for this machine. It was used at San Antonio during the maneuvers there last spring.

It is not the original aeroplane that was first brought to Fort Myer for the government in 1908. That was a considerably larger machine and was the first in the world to make a flight of more than an hour.

HENDEE DROPS AERO MOTOR

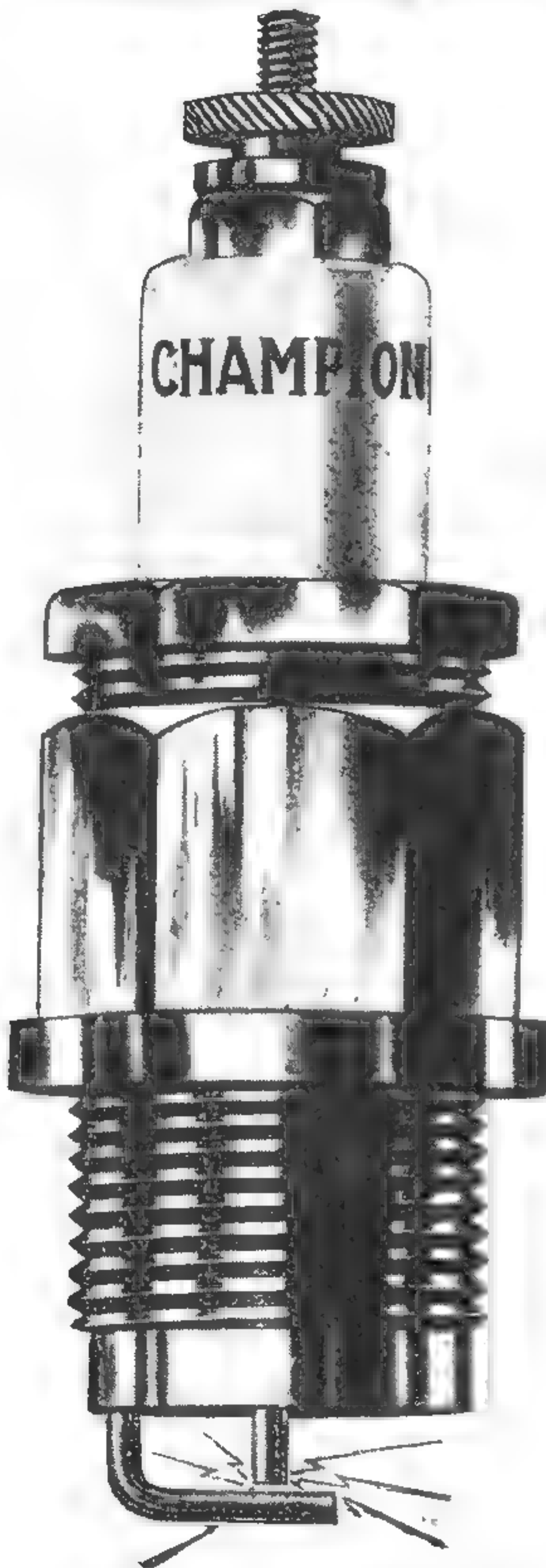
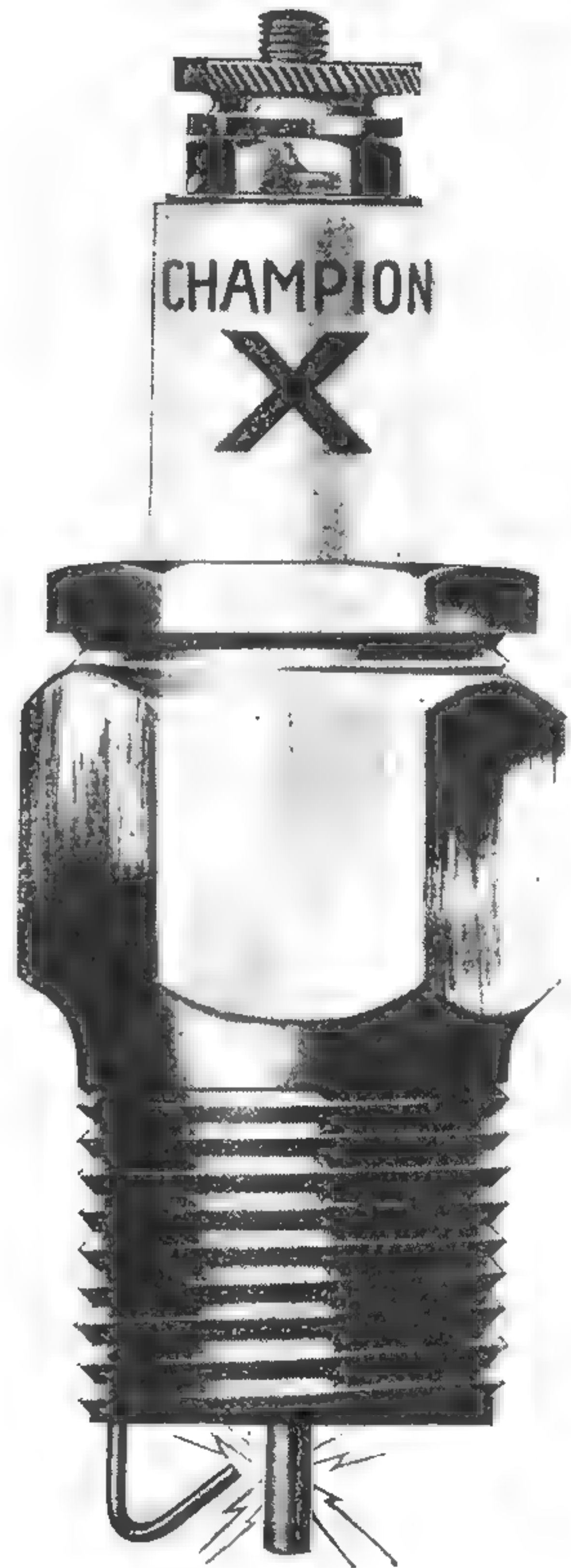
Manufacture of aeroplane motors, a new department that was recently taken up by the Hendee Manufacturing Company, of Springfield, Mass., has been dropped. George M. Hendee, president of the company, said that the motor itself was all right and that Grahame-White, the noted aviator, in trying it out had pronounced it efficient. Mr. Hendee said that after a consultation the officials of the company had decided to discontinue its manufacture because the concern will have its hands full to the brim in taking care of the manufacture of motorcycles for the coming year.

AEROPLANE GUN TO BE TRIED

Army men are interested in the result of the trials with the aeroplane gun, which was built at the Rock Island, Ill., arsenal, for military use. The gun was shipped to the proving grounds at Sandy Hook, where it will be tested.

The gun is a six pounder equipped with special sighting appliances, and will shoot upward.

1911

\$1.00**Champion Regular****\$.75****Ford Special Plug**

The Original and Only Genuine Champion Spark Plugs
NO OILING, SOOTING, or CLEANING

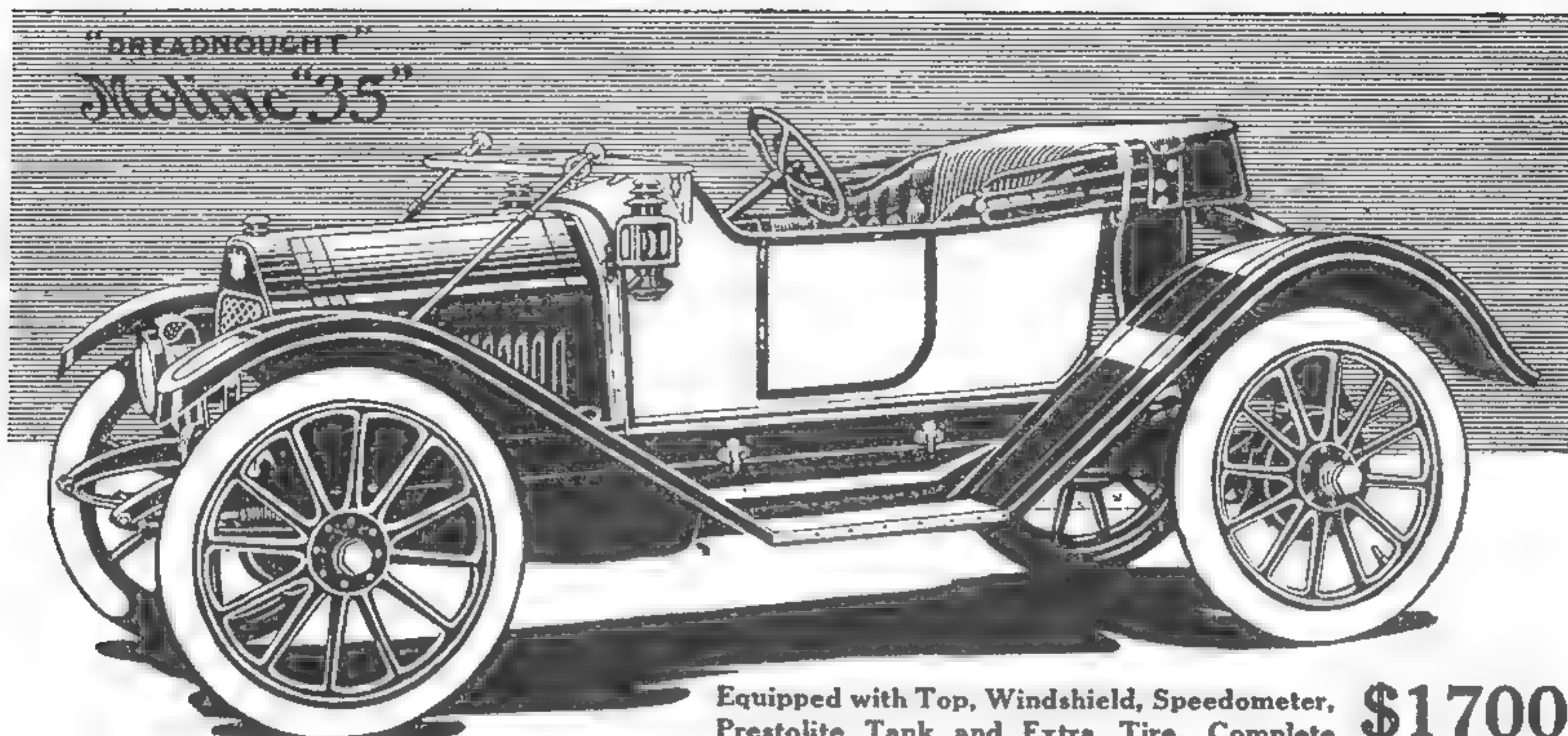
ALL SIZES—A plug for every car, motorcycle, boat or engine. Look for name—"CHAMPION"—on every porcelain. A complete line of Mica Champion Plugs also. If your dealer has not the GENUINE CHAMPION in stock, mail your order with remittance direct. We ship postpaid on receipt of order.

SOLE MANUFACTURERS

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CANADIAN REPRESENTATIVES--Sharpe Sales Co., Stair Bldg., Toronto

1911



\$1700

Self-Starting

One of the four new models of the "Dreadnought" Moline "35." A car that is attracting unusual attention wherever it appears, whether on the crowded thoroughfare of the city, on open country roads, or humming quietly along the smoothest boulevards. Equipped with the famous

Moline 4 x 6 Long Stroke Motor

It develops an excess of power above its rating. Silent as the night; free from vibration, and a revelation in economy of fuel and upkeep. Pre-eminently "The Aristocrat of All Roadsters."

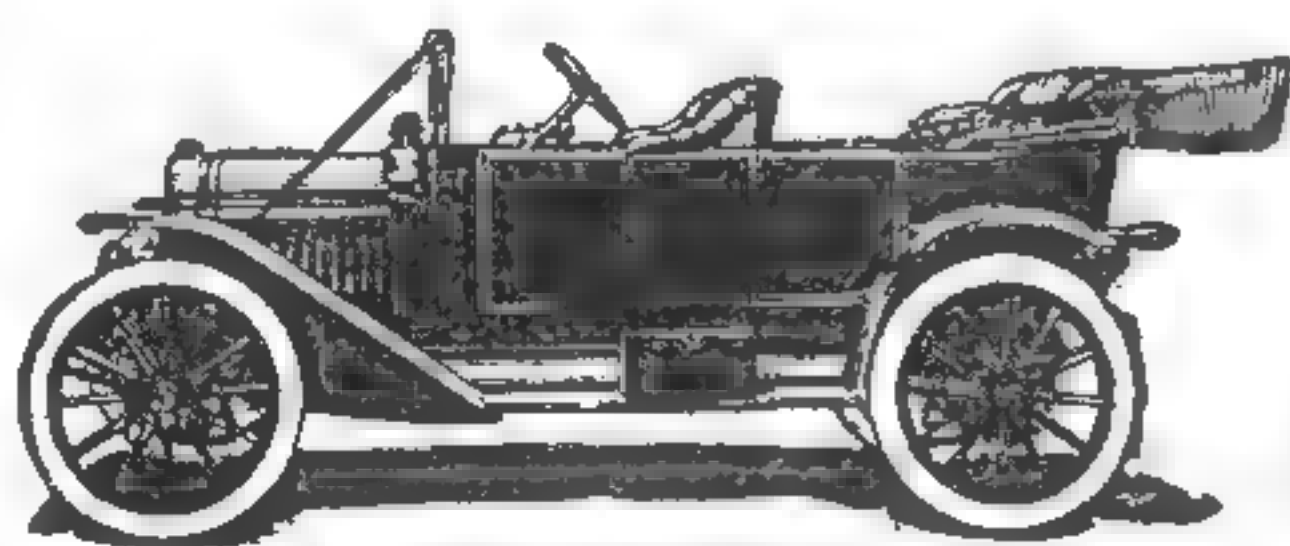
Three Other Self-Starting Models

Five Passenger Touring Car; Four Passenger Touring Car, and Four Passenger Toy Tonneau—all self-starting. Each in its class represents the same liberal value found in the Roadster illustrated above.

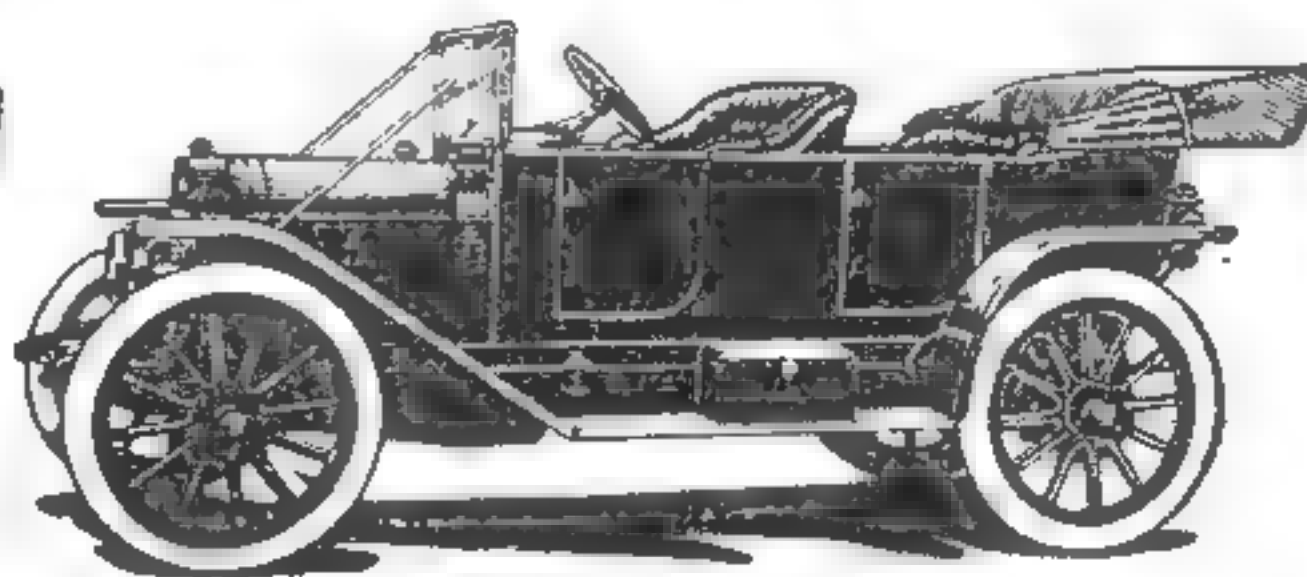
Write for Folder No. 74 fully describing all four models.

Moline Automobile Co. 74 Keokuk St. E. Moline, Ill.

High grade dealers wanted in territory not already taken



Five Passenger Touring Model

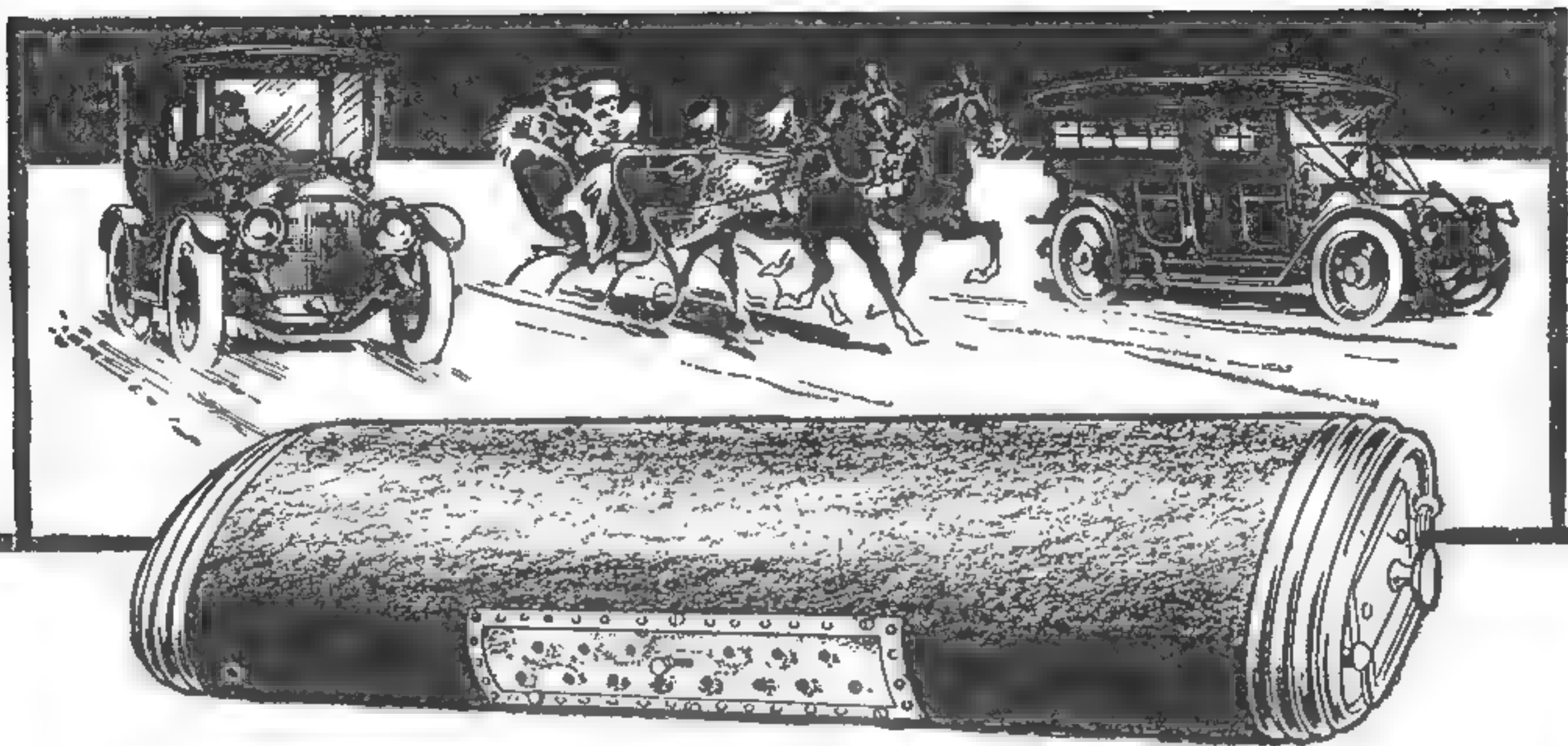


Four Passenger Touring Model

(9)



1911



Have You A Clark Auto Heater for Your Car?

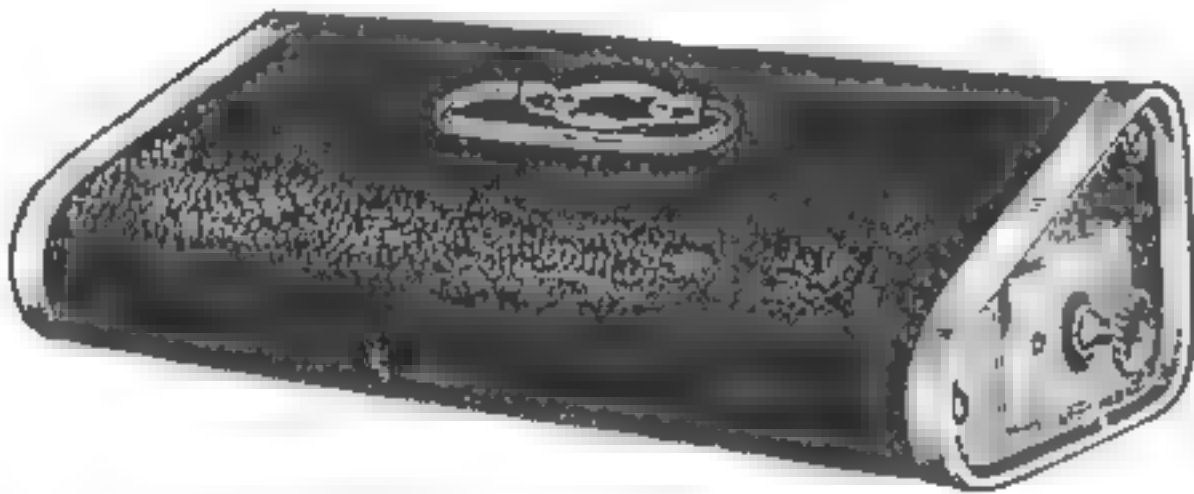
The only Practical Device for Cold Weather Driving

A **Clark Heater** radiates a strong, comforting heat which can be perfectly regulated by means of the adjustable ventilators.

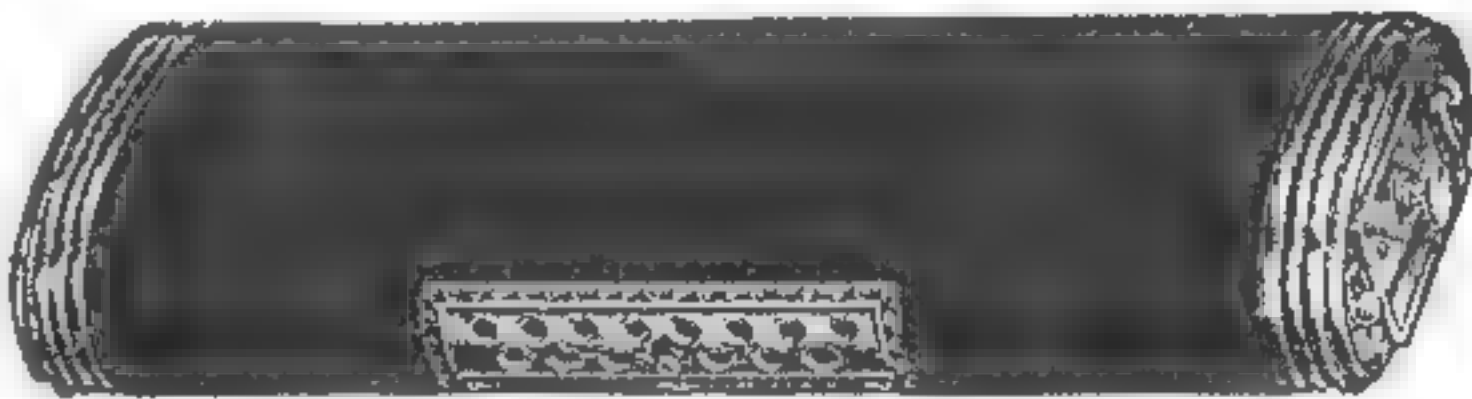
There is no flame or smoke or odor connected with its use.

Clark Heaters are made in 20 styles and sizes, ranging in price from **90c to \$10.00 each**

TWO POPULAR ONES:



Has slanting, flat top; covered with maroon mohair plush. Ends of heavy stamped metal, quadruple nickel plated; has both side and end adjustable ventilators; 14 inches long, **\$4.00** weighs 9 pounds. Price,



The handsomest heater ever produced. Covered with rich, maroon velvet plush. Ends of rolled and stamped metal, quadruple nickel plated, with adjustable ventilators. Also has at the side adjustable ventilator of handsomely embossed metal, quadruple nickeled. Intended for the highest class trade, favorite with automobile owners. **\$10.00** Price,

You will never know real comfort on cold days until you get a **Clark Heater**. Ask your dealer or write for our new 1911-1912 catalog showing the complete line.

— SEND A POSTAL TODAY —

Chicago Flexible Shaft Co.,
84 La Salle Avenue **CHICAGO**

CHARCOAL BRICKS WERE USED IN THESE HEATERS.



AVIATORS START ON COAST-TO-COAST FLIGHT

September, the last month for the start of flights in competition for Hearst's prize of \$50,000 for the first flight of an aeroplane from coast to coast, witnessed a sudden activity among aviators. Ten announced that they would start before October 1st, the last day, and up to date of going to press several are on the way.

The first to start was Robert G. Fowler, who left San Francisco September 11th. He uses a Wright biplane, with a Cole motor as used in the automobile of that name. The attempt is being financed by the Cole Motor Car Company, of Indianapolis, Ind. Fowler in his first day's flight covered 126 miles, alighting at Antrim, Cal.

The second day he made several jumps, experiencing trouble with the steering gear. In alighting near Alta, Cal., he collided with some trees, and the machine was considerably smashed up. Repair parts were rushed from San Francisco, and on the 18th Fowler started again. Meanwhile, James J. Ward started from New York on the 13th, and had so much trouble with a choppy wind that he lost his bearings, followed the wrong railroad track, and landed in Ashbrook, N. J. From there he went to Newark and Paterson. The next day he jumped several times, ending up in Scranton, Pa., after some motor trouble.

Sunday, the 17th, saw another aspirant after fame and \$50,000 go after it. Calbraith Perry Rodgers left Sheepshead Bay race track, near New York, after collecting a few kisses, some flowers and a four-leaf clover. He used a Wright machine, and covered 70 miles in an hour and a half, reaching Middletown, N. Y. in time for supper. He had a special train, and canvas was laid between the tracks of the railroad he was to follow, so that he did not lose his way.

The following aviators have announced their intention of trying to make the flight, and will probably have started before Oct. 1st:

Harry N. Atwood, who will start from San Francisco; Phil A. Parmelee, Los Angeles; Amandee V. Reyburn, Jr., New York; Earle L. Ovington, Los Angeles; and Jas. V. Martin, Los Angeles.

INTERNATIONAL BALLOON RACE

Although one of the aids has not been definitely named and there is still a little uncertainty about the balloons that will be used, enthusiasm is noticeable among the American pilots for the International balloon race October 5.

The America II, which William F. Assmann expects to pilot, will first be tried out in an ascension from St. Louis. If the balloon proves satisfactory it will be used, otherwise it is probable that Assmann will obtain the New York, now owned by Clifford B. Harmon.

Lieut. Frank P. Lahm, winner of the National Elimination race, will pilot the Buckeye; James H. Wade, Jr., of Cleveland, the owner of the aerostat, will be his aid.

John Berry will pilot the Viking, formerly owned by A. Holland Forbes, which was bought by subscriptions raised by Albert Von Hoffmann, of St. Louis. Paul McCullough will be Berry's aid.

NIEUPORT KILLED

Edouard Nieuport, the well-known aviator, was killed on September 16, when his machine fell. The aeroplane was caught in a gust of wind as it was rising from the ground and was capsized. The aeroplane struck the ground with sufficient force to be torn to pieces.

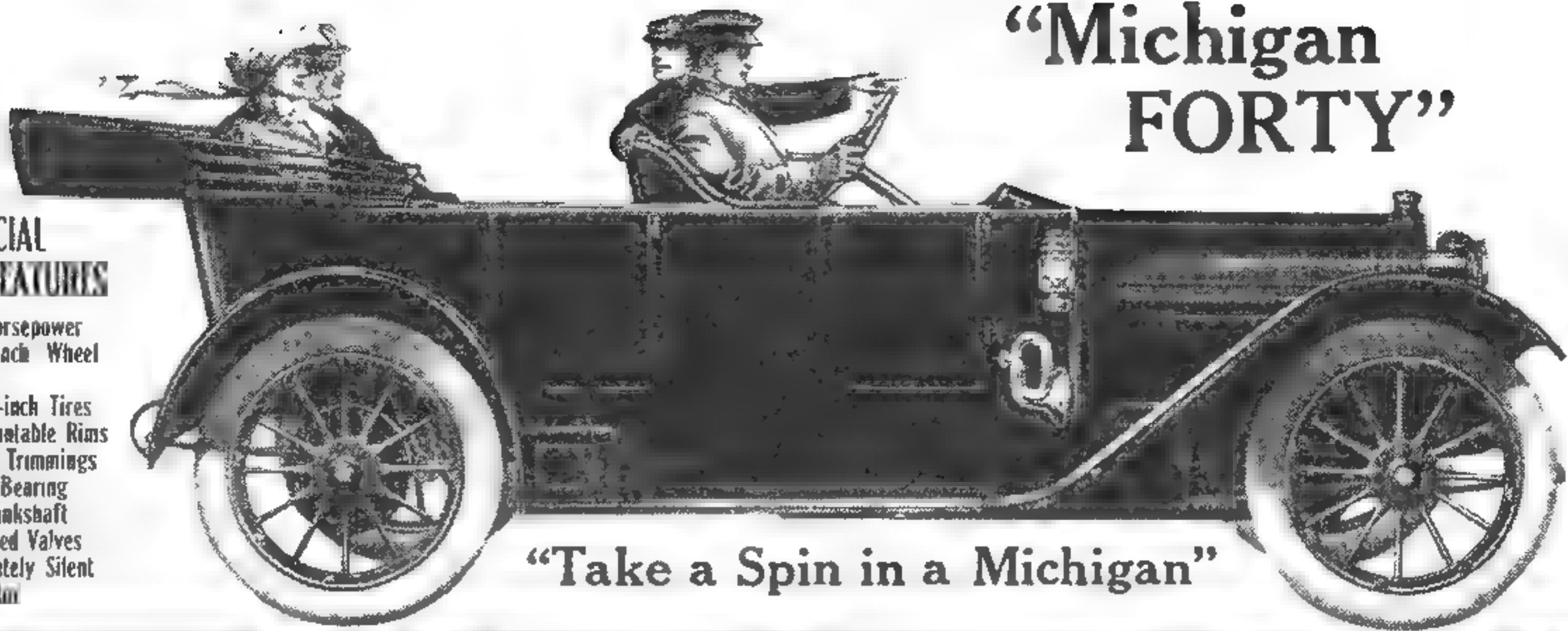
Edouard Nieuport became prominent in aviation a little less than a year ago, when his daring and skill in handling a monoplane of his own design classed him with the foremost aviators of the world.

His first feat that brought international recognition was last March when he carried two passengers at Mourmelon, France, flying 110¼ kilometers (68.47 miles) at an average speed of sixty-four miles an hour, a new speed record for passenger carrying.

FIRST UNITED STATES AERIAL POST

Captain Paul Beck, of the United States Army, is the first aerial postman. He carried the first special delivery United States mail sack that had ever been transported through the air. He made trips, twice daily from Nassau Boulevard, Long Island, to Brooklyn and various post-offices on Long Island during the international aviation meet which was held September 23 to October 1.

1911



“Michigan FORTY”

SPECIAL FEATURES

- 40 Horsepower
- 116-inch Wheel Base
- 34x4-inch Tires
- Demountable Rims
- Nickel Trimmings
- Three-Bearing Crankshaft
- Enclosed Valves
- Absolutely Silent Motor

“Take a Spin in a Michigan”

Why Sell Cars for “Glory”?
GET THE C-A-S-H!

If you are selling automobiles simply for “glory” and don’t care much for cash profit, go right on handling a car on which the manufacturer makes four times as much profit as the agent.

On the other hand, if you are selling automobiles to put money in your pocket, here’s a proposition that must prove irresistible.

Agent’s Profit
Four Times Ours

Ninety per cent of all automobile sales are made through the agent’s personality and through his ability to sell. It makes little difference what kind of a car a good agent handles (provided it is high-class and dependable), he can sell it.

So the agent is entitled to more profit per car than the manufacturer, and we allow our agents over four times as much profit on each Michigan Automobile as we make.

Our Profit Less Than
10%

Three years ago, when we, the largest makers of pleasure vehicles in the

world, began building automobiles, we did not go into the business to make a “killing.” We saw no reason why an automobile manufacturer should expect to make a young fortune on each car. Nor did we see any reason why automobile agents should get the short end of the profit.

We built the greatest buggy business in the world on the narrow-margin-of-profit idea, and we were just game enough to undertake the capture of a big automobile trade on the same idea.

We stood to lose a million dollars if our plan failed, but success was ours from the start.

62% of the 1912
Michigan Output Sold

Think of that! Even before we could get out this announcement, over 62% of our 1912 cars were in the hands of retail dealers. Yet this year’s output is over TEN TIMES greater than ever before.

The Mighty Michigan

The “Michigan Forty,” our 1912 leader, is a great Car—great in every sense—great because of its wonderful power, speed, comfort, dependability—great because no car costing less than \$2,000 can approach it in intrinsic value—great because it pays agents to sell it.

It is impossible to crowd into this page the many mechanical points that make the Mighty Michigan the peer of any car in the world. To fully appreciate its power, beauty and reliability one must see the car itself. However, our advance 1912 Catalog, containing

actual photographs of the “Michigan 40” and other Michigan Models, as well as detailed description of Wheels, Frame, Engine, Transmission, Body, Equipment, etc., will give you a clear understanding of the “Michigan’s” unsurpassed quality.

You can rest assured that we, with a trade-mark and name worth millions of dollars, would never have gone out after automobile business with anything less than as good an automobile as Yankee brains can build.

Send Coupon for Agency
Proposition and 1912
Catalog

Don’t tie yourself up with anybody until you have first looked into our Agency Proposition. It is the best ever offered Automobile Agents. “Michigan” Agents are making double the money made by the average agent. We have the proof. We ask you to investigate. Get the facts. Then decide for yourself.

Write us a letter or simply fill in the coupon below with pencil and mail it to us. We will at once write you personally regarding our Exclusive Agency Proposition and send the 1912 Advance Michigan Catalog, provided we have no agent in your territory. Write!

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926 Lay Boulevard, Kalamazoo, Mich.

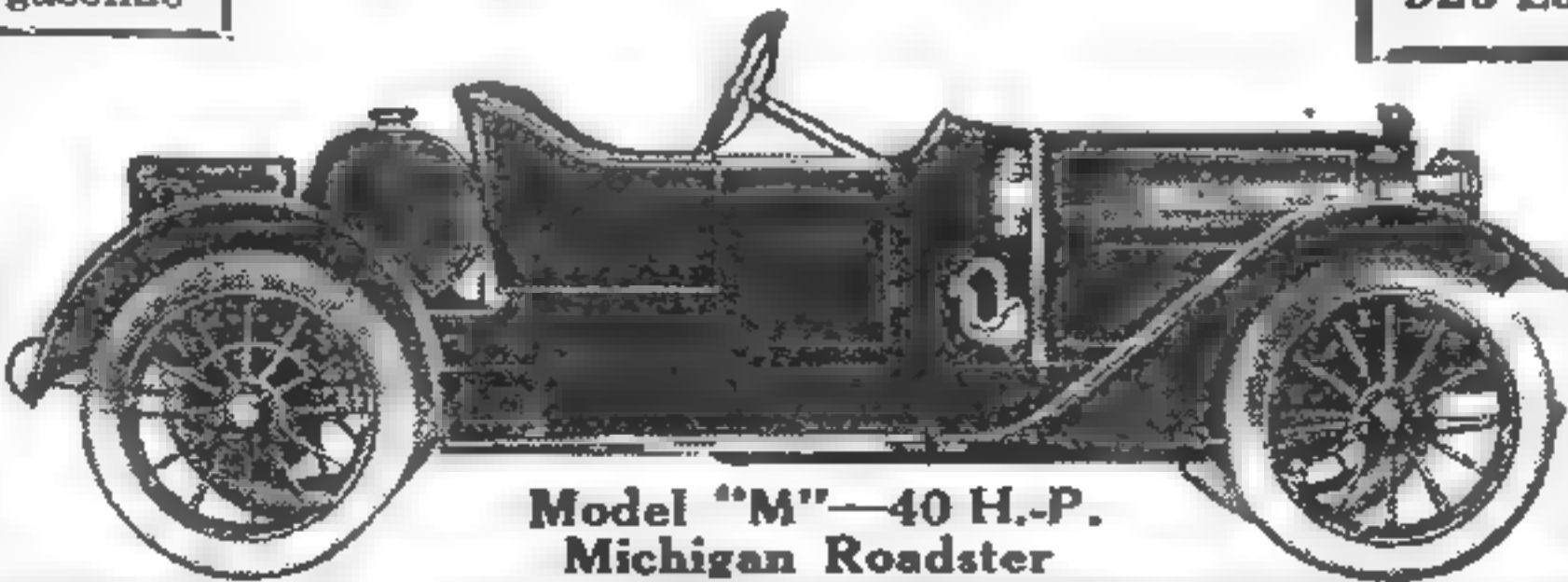
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Please send us the 1912
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Model “M”—40 H.-P.
Michigan Roadster

Made in Five Models
Model “K”—40-horsepower, 5-passenger Fore-door Touring Car. 116-inch wheel base, extra large roomy seats, inside control. Dual ignition system with Briggs Guaranteed Magneto. Cylinders 4½-inch bore, 5½-inch stroke. Three-bearing crank shaft. Enclosed valves and dust-proof motor, absolutely silent in operation. Nickel trimmings. 34 x 4-inch tires and demountable rims. A big, handsome, powerful, dependable car that suffers none by comparison with the Packard, Peerless or Lozier. Price, \$1,500.
Model “M”—40-horsepower Roadster; built on same chassis as Model “K” Touring Car—same style, same finish. A two-seated business or suburban car with 40-gallons gasoline capacity. Speed 70 miles per hour. Equipment same as on Model “K.” Price, \$1,500.
We also build three machines of 33-horsepower. Our Model “H” Torpedo Touring, Model “E” regular Fore-door Touring Car and Model “D” Roadster. All models are sold equipped with magneto, five lamps, generator, horn and all tools.
(57)

FLANDERS
20

Coupe

\$975

Silent as an electric; amply efficient in its motive power; complete to the remotest detail in the refinement of its body; ready at any time to travel anywhere, the Flanders "20" Coupe is the ideal vehicle to carry Milady on her expeditions into the shopping district or on her round of social duties.

Its comfort makes it a veritable drawing room on wheels.

This Coupe is luxuriously equipped, is finished in dark green enamel with nickeled trimmings, has English broadcloth upholstery, and is fitted with interior and exterior electric lights.

The E-M-F Company

Automobile Manufacturers

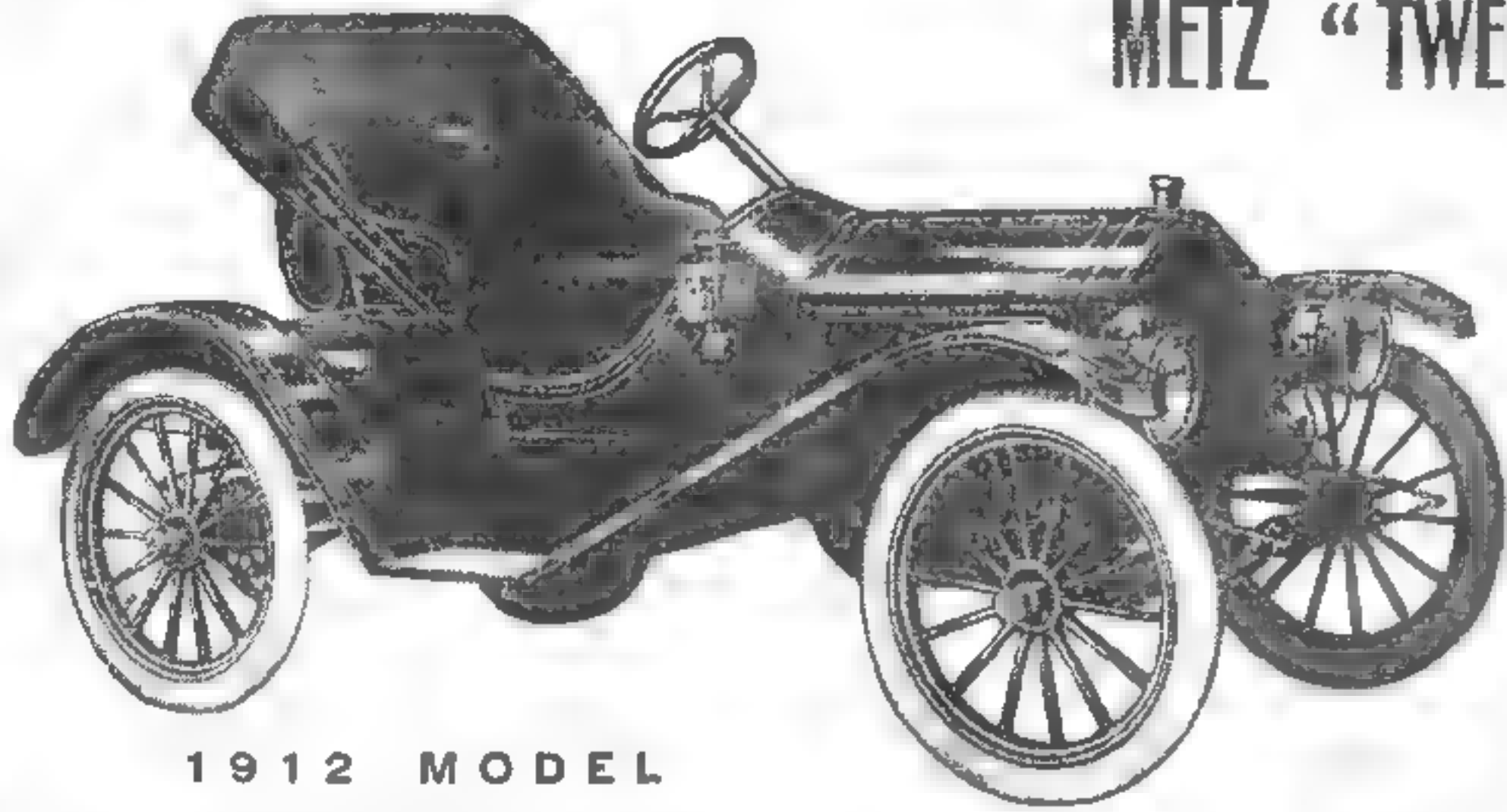
Detroit, Mich.



Tell the substitutor: "No, thank you, I want what I asked for. Good-bye."

OCTOBER, 1911

CYCLE AND AUTOMOBILE TRADE JOURNAL.



1912 MODEL

METZ "TWENTY-TWO" WATER COOLED

COMPLETELY EQUIPPED AS SHOWN \$600

High Tension Magneto Ignition.

Four cylinder motor twenty-two HP, valves and all moving parts enclosed and dust proof.

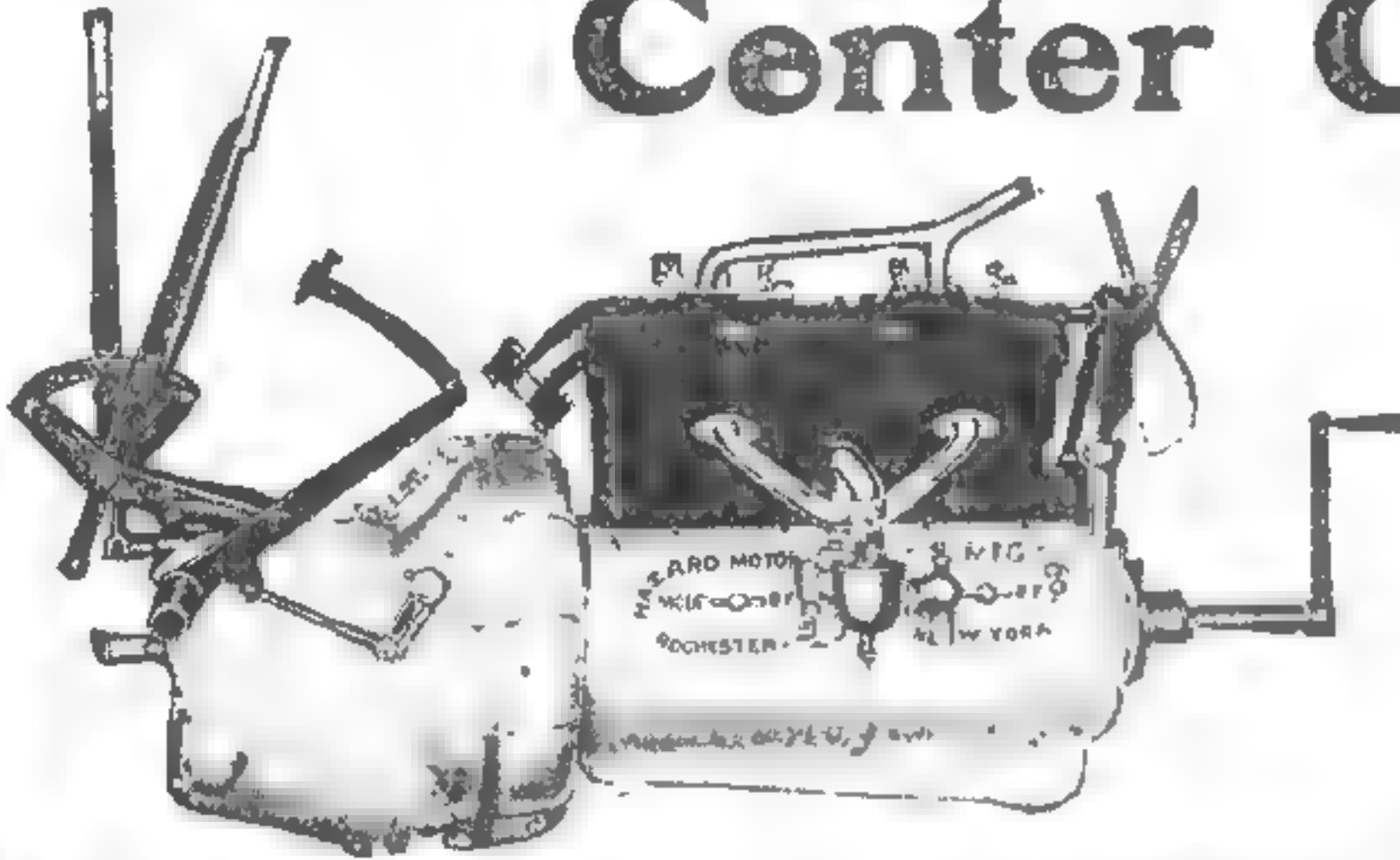
Ask for Book "G" with hill climbing guarantee

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METZ COMPANY

WALTHAM, MASS.

Center Control



Three Point Suspension

Oil Tight, Dirt Proof

Powerful, Reliable

24 H. P. 30 H. P.

Booklet on application

Hazard Motor Mfg. Co., Box 1042, Rochester, N. Y.

CHAIN CASES AND DIAMOND CHAINS

are now considered the ideal form of transmission by a number of leading manufacturers of motor vehicles. Their judgment is invariably based upon years of experience in the automobile field and intimate acquaintance with the performance of Diamond Chains.

Chain cases can be added to the drive at a small fraction of their worth in lengthened chain and sprocket life and improved service with minimized attention. It is therefore not surprising that more and more makes of trucks are coming out with chain cases every year.

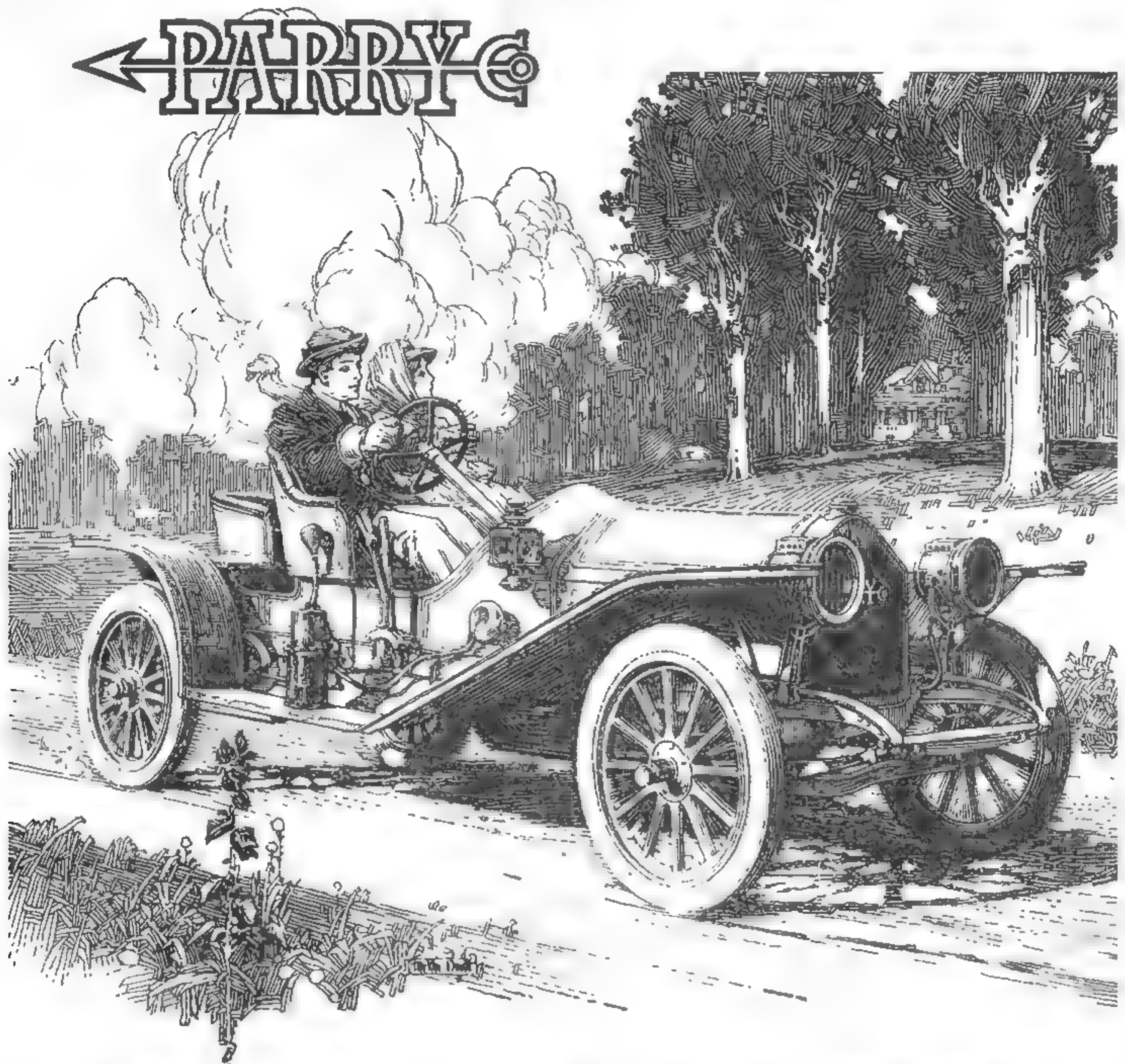
Diamond chains themselves are too well known to need much comment. They have made and enjoyed their enviable reputation during twenty-two years of supremacy. The hardened nickel steel rivets and bushings, rollers and side bars of special chain steel, leave nothing to be desired in good material, while our accuracy of machining and finishing and rigid testing of each completed chain assure the customer the best chain service that money can buy. Our engineering department is ready to help on design problems.

DIAMOND CHAIN & MFG. CO., 260 W. Georgia St., Indianapolis, Ind.

CAPACITY, 8,000,000 FEET PER YEAR

March 24, 1910

THE AUTOMOBILE



“IN THE LONG RUN A PARRY”

The Parry Idea.

Away in a Parry! The sun warms you, the air cleans you. Sing to the rhythm of your powerful motor while the open road glides beneath. It thrills you to the funny bone. In the spring a Parry is as irresistible as gravitation.

ORDER NOW

ORDER NOW!

ROADSTER
116 inches—32-36 H.P.
\$1285

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116 inches—32-36 H.P.
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PARRY AUTO COMPANY
INDIANAPOLIS INDIANA

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Can you afford to be without

Everyman's \$485 Car

The Brush Runabout



WITHOUT a car, you are paying a penalty in time lost, in energy wasted, in healthful recreation missed. You don't need a big, high-powered, high-priced car—expensive to buy and more expensive to run—to enjoy the convenience, the pleasures of an automobile.

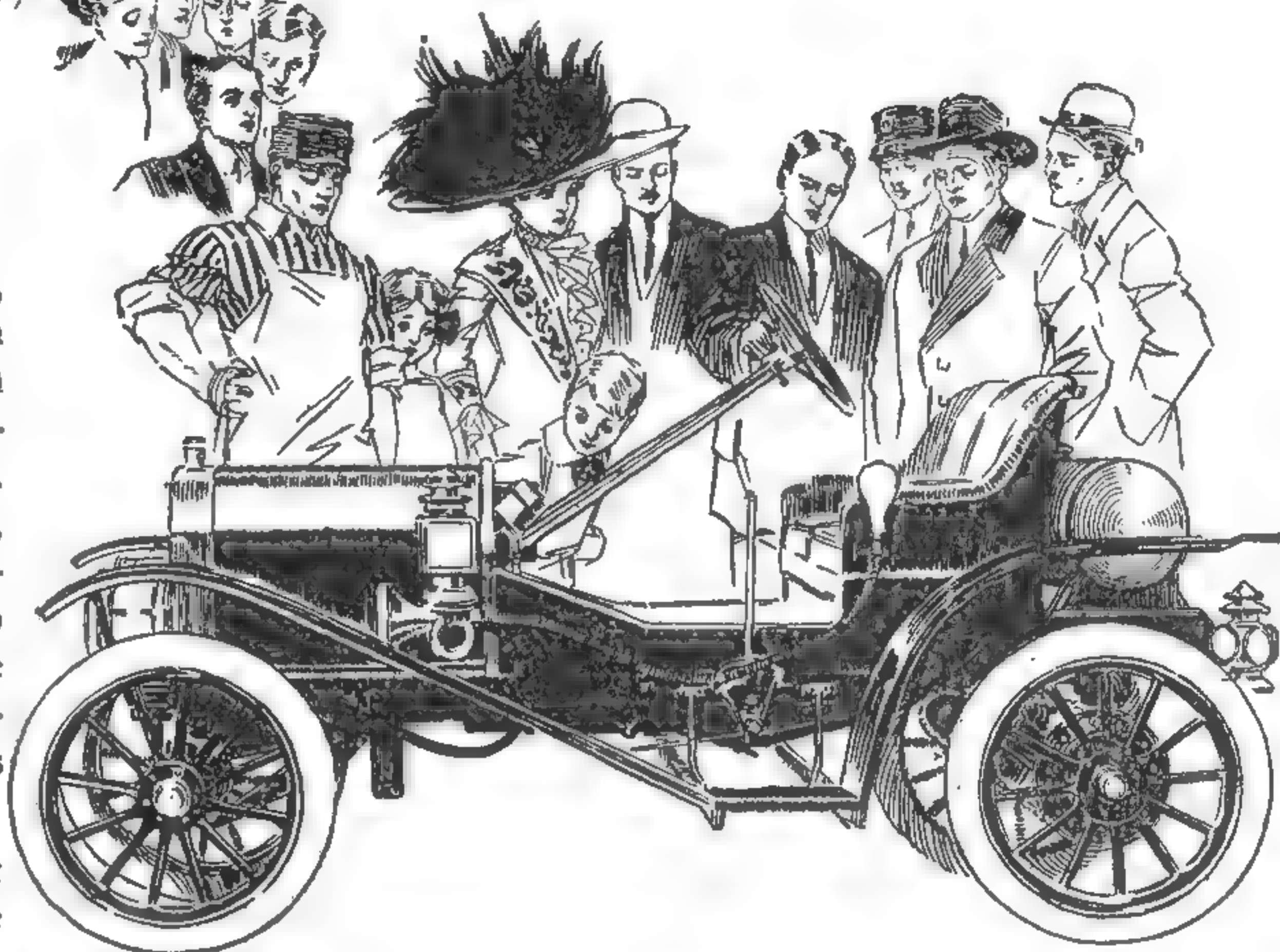
The Brush Runabout cost scarcely a cent a mile to run—less than a horse and buggy. It is not only a dependable motor car, but will "earn its keep." It is not a mere pleasure car; it is a "utility" car—a business asset six days of the week, an economical means of recreation outside of office hours.

The Car for Every Man

The business man—You can get to your office quicker than by street car, cheaper than by train, and the fresh morning air will fit you for the day's work. Then you can keep the car busy all day, calling on customers, delivering goods, running errands.

The salesman—You can make more calls in a day, cover more territory, carry samples easily and comfortably.

The physician—You can make your calls in half the time it now takes; reach your emergency cases quicker, and have more time for study and recreation or for your own family.



The farmer—You can use the Brush in numberless ways—going to town, "getting 'round" the farm, taking produce to market and bringing back the supplies. The women folks can use the car for visiting or shopping, or the children for going to school.

Any man—(or employer of men)—whose value depends upon quick transportation, any man who wants to live in the country without being tied to a time table—the Brush is the car you should have.

Service Tests Prove It

Ten thousand Brush owners have proved these qualities in its daily use—have learned the adaptability of EVERYMAN'S CAR for business or pleasure.

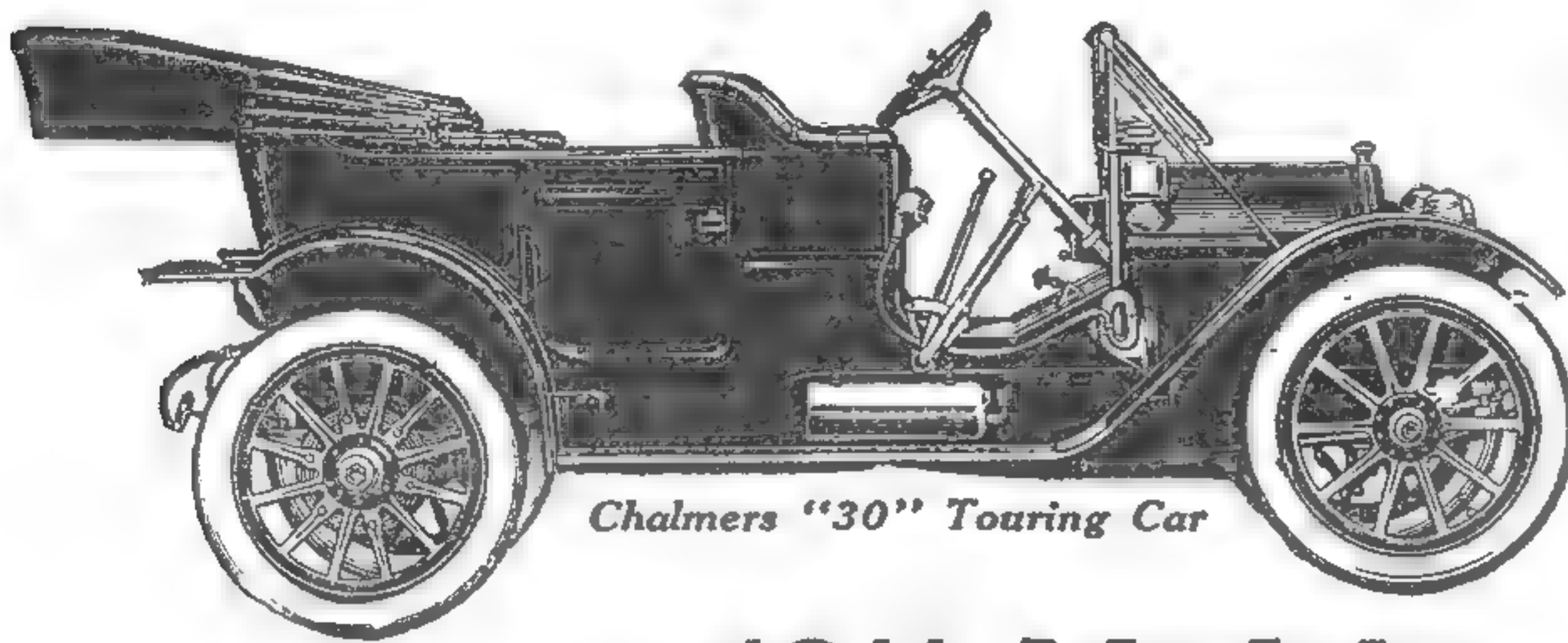
Let them tell you what the Brush is doing for them, and how little it costs them. Send a postal card saying "Mail Brush Book."

BRUSH RUNABOUT COMPANY, 120 Rhode Island Avenue
DETROIT, MICH.

Licensed under Selden Patent

January 1911

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Chalmers "30" Touring Car

Chalmers "30"
 Touring Car, \$1500
 115 inch wheel base,
 34 inch wheels.

Pony Tonneau, \$1600
 Roadster, \$1500
 Limousine, \$3000
 Landulet, \$3000
 Coupe, \$2400

Chalmers "Forty"
 Touring Car, \$2750
 Torpedo Body, \$3000
 Roadster, \$2750

1911 Models

Chalmers

MOTOR CARS

The Car That Won the 1910 Glidden Trophy

THE Chalmers "30" is the only medium priced car that ever won the Glidden Trophy, and the Glidden Tour this year was the longest and hardest reliability run ever undertaken.

For five days after every other car was penalized—and over the worst part of the route—the Chalmers "30" continued with a perfect score.

The winning car was strictly a stock car, the same as you would buy at any Chalmers salesroom.

Such a test answers all questions of speed, power, endurance, reliability, that expert or novice could ask. The Chalmers "30" has proven itself over and over again to excel in all these features—in fact, *the Chalmers "30" has never been defeated in any important motoring contest by a car of its own price and power class. There is no stock car in the world at any price with such a record.*

The Chalmers 1911 models are now ready for delivery. In all vital features they remain the same cars that have created world's record for speed, endurance, efficiency and consistency.

In general the greatest improvement on the 1911 Chalmers consists in refinement of detail, like the artist's final touch to the masterpiece. Lines have been beautified in body and fender, so that—viewed from any angle—no car, whether it costs \$5000 or more, affords more eye-delight than the Chalmers.

In detail—the curves just back of the tonneau doors have been straightened out, making the low, rakish, straight-lined bodies which every maker strives so hard to obtain. The seats have been lowered, adding materially to the riding comfort.

The tonneaus of both "30" and "Forty" have been made longer and wider. The fenders have been changed slightly, adding to the graceful appearance of the car.

The battery box has been placed under the tonneau floor and a big tool box placed on the left running board, a change that every driver will praise.

New style carburetors are used on both motors and their economy and uniformity of operation under all conditions will surprise every buyer.

On the "30" we furnish a Bosch magneto, big new-style gas lamps, Prest-O-Lite tank and a special Chalmers top—all for \$200 additional.

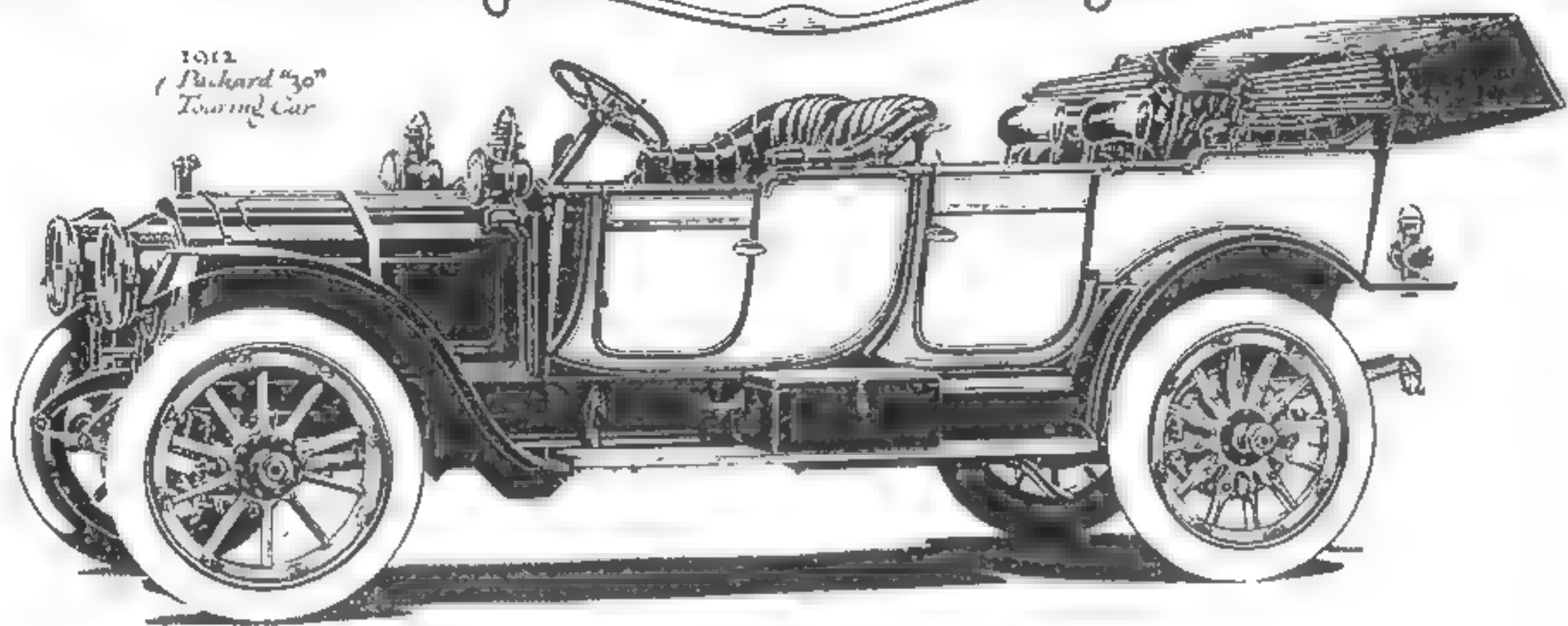
As in former years, the Chalmers principle is not to make as many cars as possible, but to make them as good as possible. Chalmers cars are built on a quality, not a quantity basis.

We would like to take care of everyone who wants a Chalmers, and yet it is not our ambition to build cars in very large quantities; hence we would advise you to place your order early.

Write for the new catalog "BC" and name of the nearest dealer.

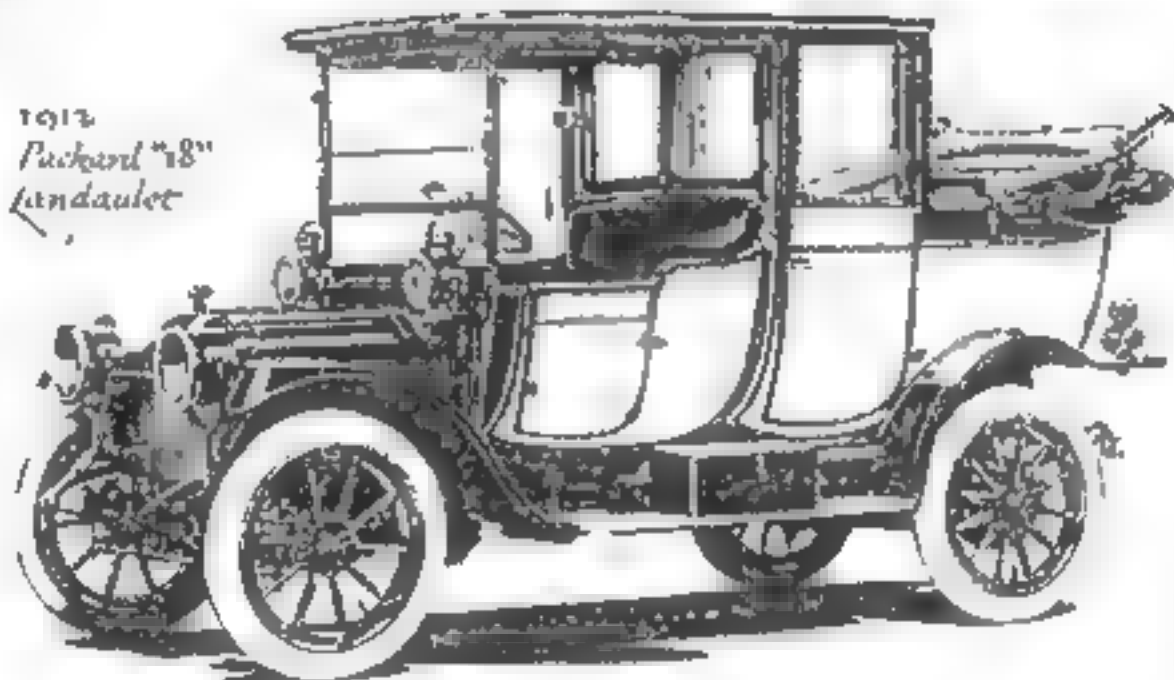
CHALMERS MOTOR COMPANY, Detroit, Mich.
(Licensed under Selden Patent)

Packard 1912 Motor Cars



1912
Packard "30"
Touring Car

Chassis in
three sizes



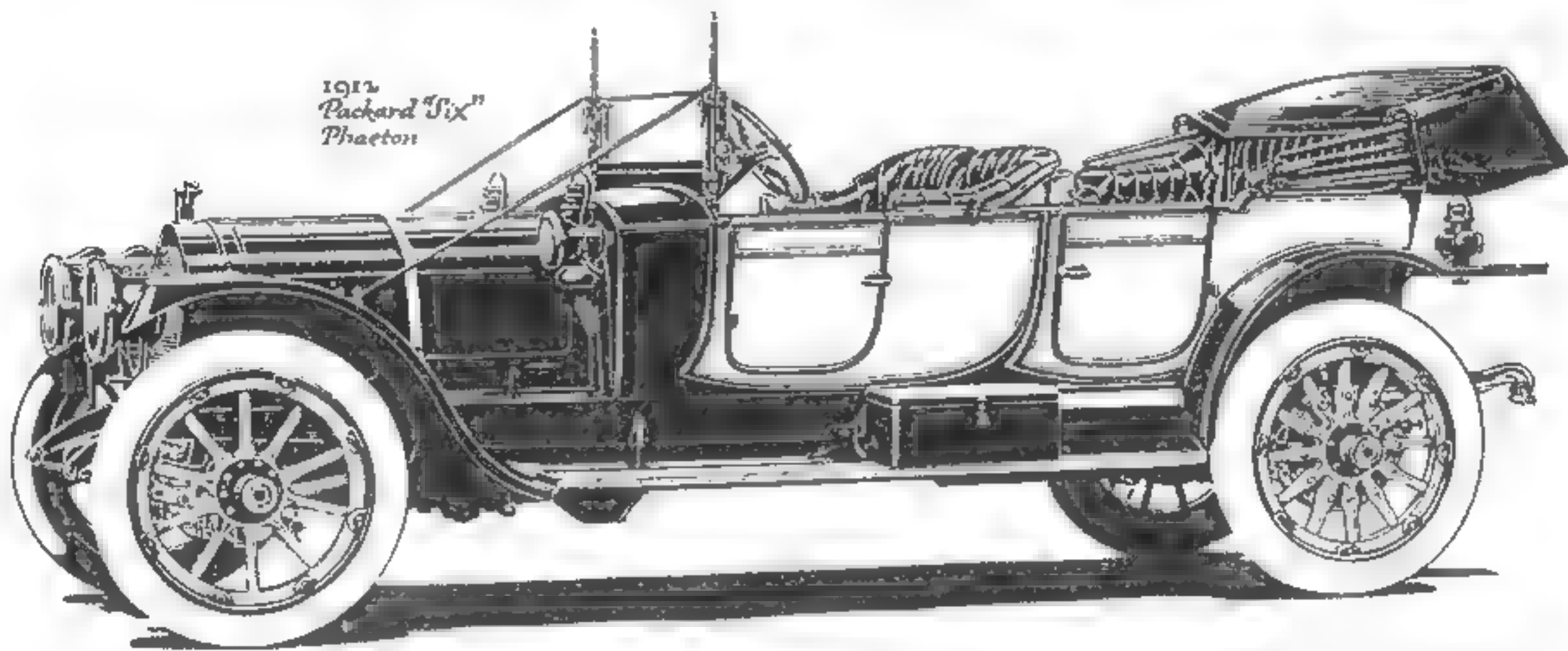
1912
Packard "18"
Landaulet

Large line of
Open and
Enclosed
Four-Door Bodies

PACKARD "30" 40 Horsepower ALAM Rating	PACKARD "18" 26 Horsepower ALAM Rating	PACKARD "SIX" 48 Horsepower ALAM Rating
PRICES IN STANDARD FINISH AND EQUIPMENT		
Touring Car \$4100	Open Car \$3200	Touring Car \$5000
Phaeton 4200	Runabout 3200	Phaeton 5000
Runabout 4200	Close-Coupled 3200	Runabout 5000
Close-Coupled 4200	Limousine 4400	Close-Coupled 5000
Limousine 5450	Landaulet 4500	Limousine 6150
Landaulet 5550	Imperial Limousine 4600	Landaulet 6150
Imperial Limousine 5650	Imperial Landaulet 4700	Imperial Limousine 6450
Imperial Landaulet 5750	Coupe 3900	Imperial Landaulet 6550
Brougham 5500		Brougham 6100
Coupe 4900		Coupe 5700

Catalog on request
Complete information from any Packard dealer

PACKARD MOTOR CAR COMPANY, DETROIT, MICHIGAN



1912
Packard "Six"
Phaeton

Ask the man who owns one

NOTE: All ads appearing in this Scrapbook are of course void, having appeared years ago. They are reproduced not for the purpose of selling any merchandise. The ads do, however, show the great progress made by both the automotive industry and the advertising firms of this country.

This Mark
has an
Important
Meaning
to Every
Business Man
in America



General Motors Truck Company is organized to provide and maintain scientific motor delivery and hauling systems. The GMC mark will stand not only for mechanical excellence in the truck upon which it appears, but for a service designed to make that truck an economical unit in a system producing for its user the highest possible return per dollar invested.

General Motors Truck Company will offer:

First, a Before-Sale Service by which the needs of a prospective installer will be analyzed and studied and a scientifically determined plan provided, recommending the proper types and sizes of trucks and methods of operation to give greatest efficiency and economy under the individual conditions presented;

Second, a line of motor trucks comprising gasoline and electric types, the former in both under-hood-motor and under-seat-motor models, and each type in a line of sizes covering all requirements;

Third, an After-Sale Service, whereby the branch houses, agencies and dealers of this company will be in a position immediately to supply any needed repair parts for GMC Trucks, and to keep the trucks up to the highest operating efficiency.

As an earnest of the solid reality of GMC Service it may be mentioned that the Service Department of this company is maintained as a distinct department of the selling organization, and with its own manager, this department having behind its guarantees the resources of General Motors Truck Company.

Orders will now be taken for GMC Gasoline Trucks as follows: 1 Ton for delivery in 60 days from January 1st, 1912; 2 Tons, for delivery in 60 days from date of sale; 3½ Tons and 5 Tons for immediate delivery. Other sizes in Gasoline and in Electric models will be announced later.

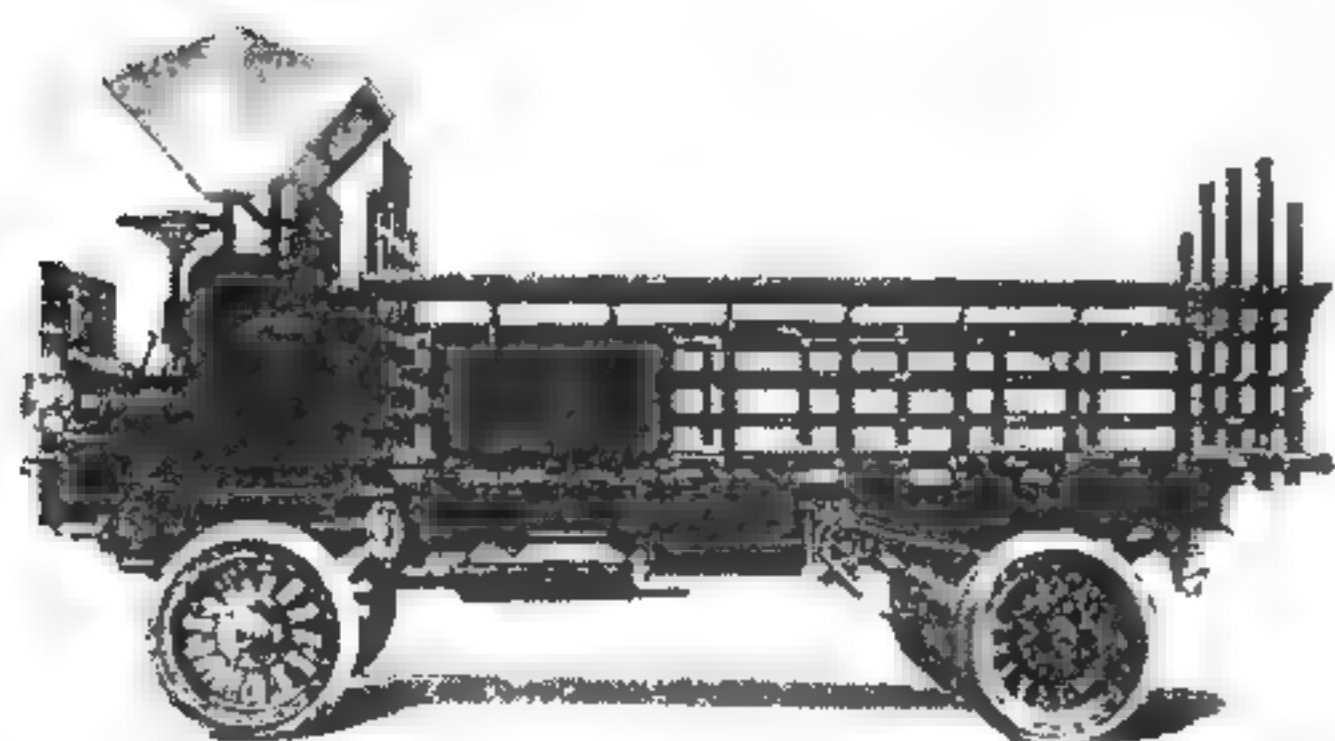
GMC Gasoline and Electric Trucks will be exhibited at the New York, Chicago and Boston Shows

Correspondence from prospective purchasers and dealers is invited.

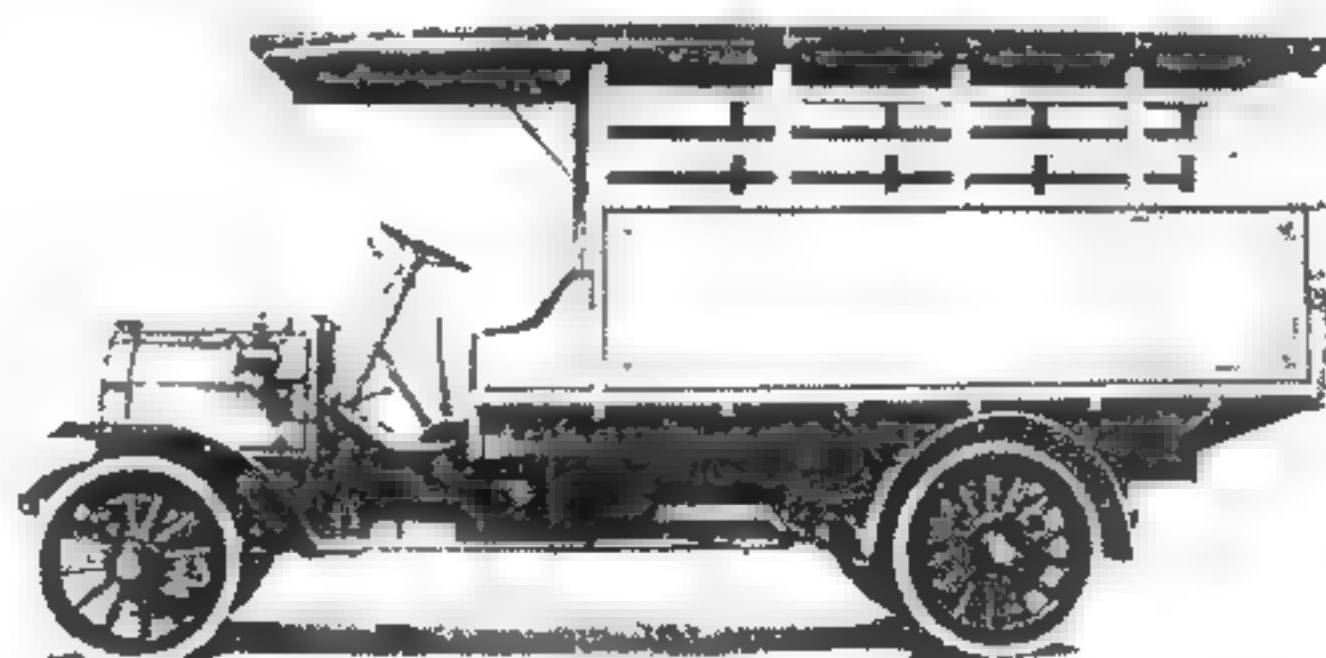
GENERAL MOTORS TRUCK COMPANY

DETROIT, MICHIGAN

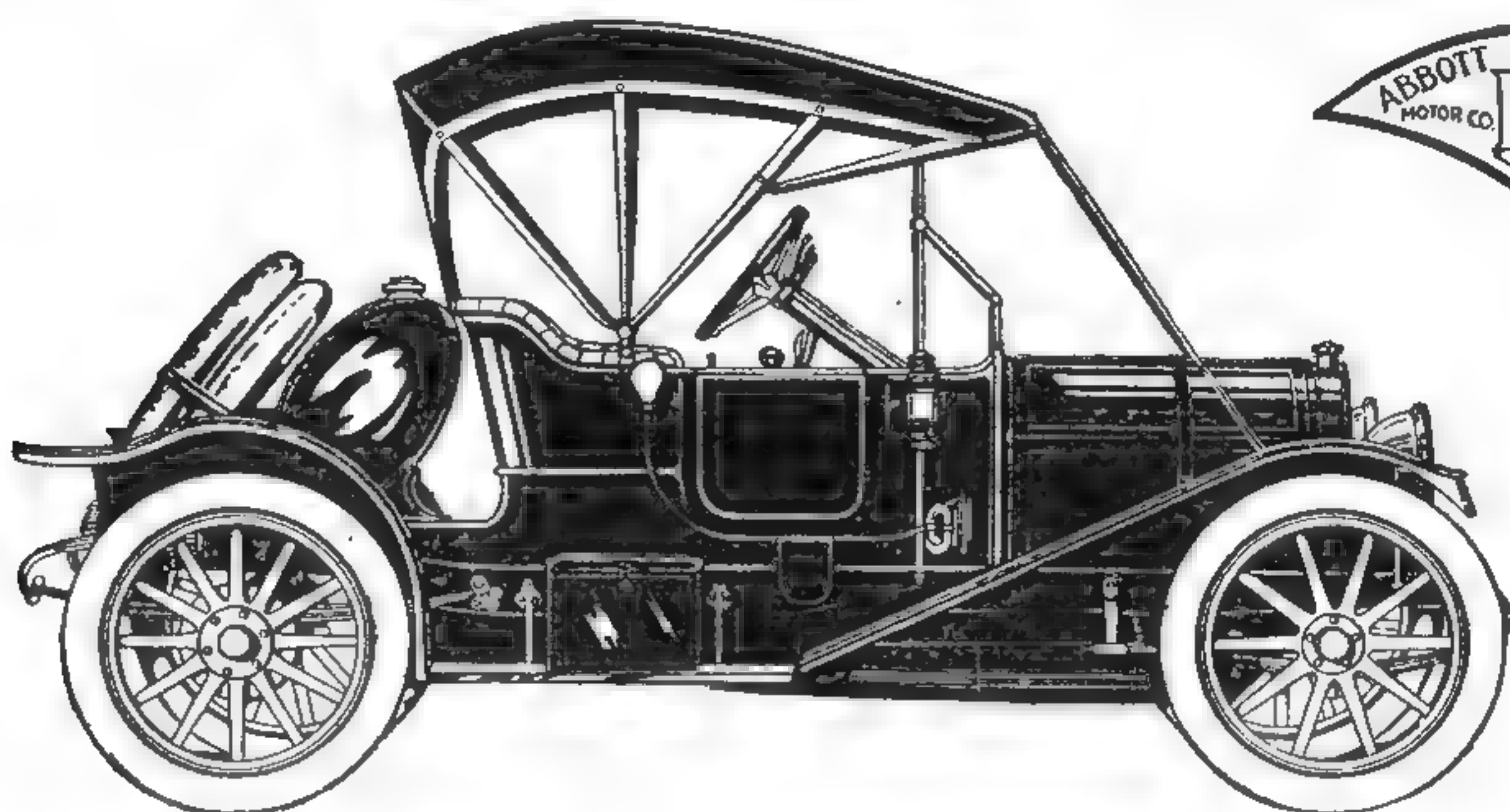
Branches: New York, Chicago, Boston, Philadelphia, Kansas City



Model H — 3½ Ton Capacity, Price, Chassis only, \$3500



Model S — 2 Ton Capacity, Price, Chassis Only, \$2750



Fore-Door
Roadster



The Pleasures of Motoring Increased by the Abbott-Detroit

Heretofore no man could purchase for \$1500 a car capable of the speed and endurance performances of the Abbott-Detroit.

Many weeks of continuous victories over the highest priced cars establish this most conclusively.

The wonderful power of this car opens up new pleasures in motoring to the man who buys a \$1500 car—greater sustained speed, more successful and longer tours, better all around dependability and un-failing service.

Features Heretofore Strangers To \$1500 Cars

These features are ones that certainly mean new pleasures in Abbott-Detroit motoring.

The Abbott-Detroit painting and trimming specifications are parallel to those of any \$4000 car on the market.

The Abbott-Detroit has Chrome Nickel Steel Construction in the transmission and rear axle with imported F. & S. Annular Bearings and Timken Roller Bearings.

The Abbott-Detroit has a complete electric light equipment of two electric headlights and combination electric and oil side and rear lamps, and a Bosch High Tension or Splittorf dual ignition system.

Fully Standardized Always Up-to-Date Completely Equipped

For \$1500 you do not get a car that has been developed in a hurry, one that has only last year's ideas in it, one that is simply stripped and in addition to which you have to buy a great deal of equipment.

Every part of the Abbott-Detroit has been developed to a stage of perfection that makes improvement impossible under existing conditions. We do not save up our ideas for next year's model. If they are deemed worthy of adoption they go into the car right away. As shown above, the Abbott-Detroit is sold with standard equipment, which is included in the price, \$1500.

And Still Other Pleasures In Driving A Powerful Abbott-Detroit

The man who drives an Abbott-Detroit is proud of his car because he thinks of its great record.

He realizes, as he feels it respond to his command and rush swiftly along the highway, that this is the same car that on American speeding courses has defeated some of the best high priced cars.

He exults in the fact that the car the thousands cheered at the Vanderbilt Cup Races, the Fairmount Park Races, the Atlanta, Ga., and San Antonio, Texas, Races, is the one with which he is identified.

We Invite You To Share Abbott-Detroit Advantages

You can benefit from the work of the corps of engineers who built the first Abbott-Detroit, from the years of development that have produced the only thoroughly standardized motor car at \$1500, and from the wonderful record of Abbott-Detroit cars in American Blue Ribbon Events, which naturally causes every Abbott-Detroit owner just pride.

Just fill out the Coupon below and mail it to us today. We'll send you The Book of Abbott-Detroit, fully illustrating and describing this great car. In addition we'll give you a letter of introduction to our local agent so that you can go and see an Abbott-Detroit and take a ride in it and get your first taste of the increased pleasures of motoring brought about by the Abbott-Detroit.

Dealers writing us about territory still not taken will be made our regular Agency Proposition.

Models and Prices

5-Passenger Touring Car \$1500;
Fore-Door 5-Passenger Touring Car \$1550; Fore-Door Roadster, \$1500;
Fore-Door Demi-Tonneau (Tonneau detachable) \$1650; Coupe, \$2350, all include Standard Equipment; f. o. b. Detroit, Michigan.

Abbott Motor Co., 110 Waterloo St., Detroit, Mich.

Distributors—Craig Auto Co., 465 Woodward Ave., Detroit, Mich.; M. M. Levy & Co., 2410 Strand, Galveston, Texas; H. J. Lindsmith & Co., Lima, O.; Royal Automobile Co., 517 Second Ave., Minneapolis, Minn.; Snyder Auto Co., 763 E. Long St., Columbus, O.; Whitten Motor Vehicle Co., 200 Meeting St., Providence, R. I.; Sullivan Auto Co., S. Charleston, O.; George L. Reiss, 1776 Broadway, New York City; J. H. Wright, 38 Market St., Auburn, N. Y.; H. H. Roberts & Son, Elmira, N. Y.; D. A. Michael, Daytona, Fla.; Burdick & Hartwell, 231 River St., Troy, N. Y.; E. T. Montigny, 33 Grant St., Brooklyn, N. Y.; W. E. Piquette, 408 So. Augusta Ave., Baltimore, Md.; A. D. Motor Co., of New England, 9 Harcourt St., Boston, Mass.; J. S. Eby, W. Liberty, Ia.; Bison Motor Co., Main and Barker Sts., Buffalo, N. Y.; T. J. Northway, 92 Exchange St., Rochester, N. Y.; A. D. Motor Co. of Pa., 211 N. Broad St., Philadelphia, Pa.; Centaur Motor Co., 1725 Michigan Ave., Chicago, Ill.; Van Vliet-Fletcher Auto Co., 10th and Walnut Sts., Des Moines, Iowa; John Deere Plow Co., Dallas, Tex.; Warren Garage Co., Warren, Pa.; Jones Auto Exchange, Wichita, Kansas; Abbott-Detroit Motor Co., Los Angeles, California; H. J. Tucker, 808 W. Pender St., Vancouver, British Columbia.

Abbott Motor Co.,
110 Waterloo St.,
Detroit, Mich.

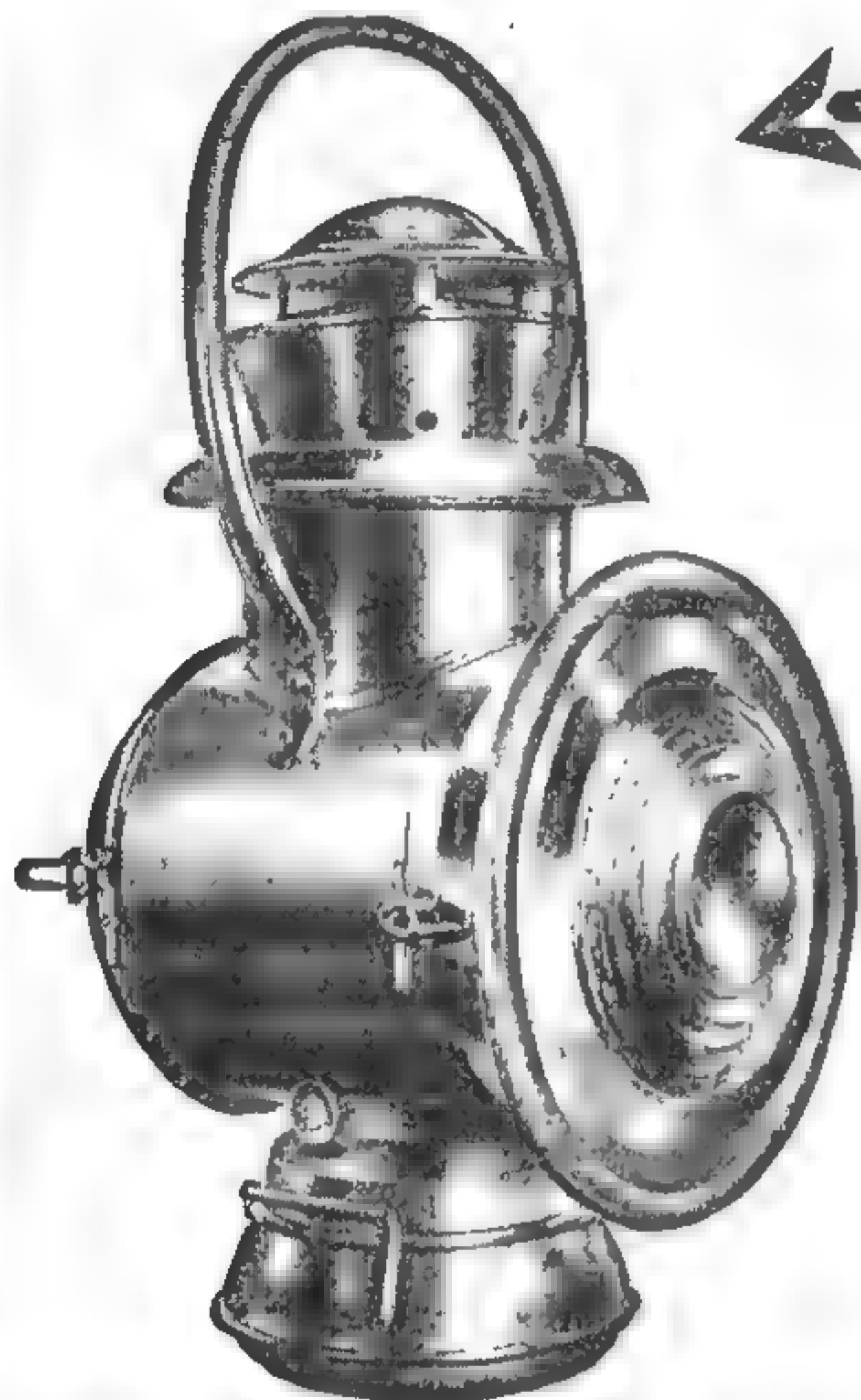
Gentlemen:—

Kindly send me The Book of Abbott-Detroit and give me a letter of introduction to your local agent.

Name.....

Address.....

NOTICE the DIFFERENCE



HAM'S METEOR

Did you ever notice the difference in the burning qualities of a lamp? There is a big difference. Just watch the Autos as they pass; if the wind is blowing or they are running fast, you will notice the flame is cut way down, some of them so bad that you can hardly see the light.

Not so with Ham's—they are built on the "Cold Blast" principle, which means perfect combustion. The draughts are so arranged that the flame is not affected by strong winds or fast driving. Therefore you always have a big, steady, white light that will not blow or jar out.

If you want lamps that are built to burn and give service, and have that rich quality effect, let us send you one of our catalogues.

Address Dept. "C."

C. T. HAM MFG. CO. ROCHESTER
NEW YORK



We have satisfied nearly 3,000 customers that a high grade used car, thoroughly rebuilt as we rebuild them and sold under our guarantee, is much better value than a cheap new car at the same price.

200 cars to select from.

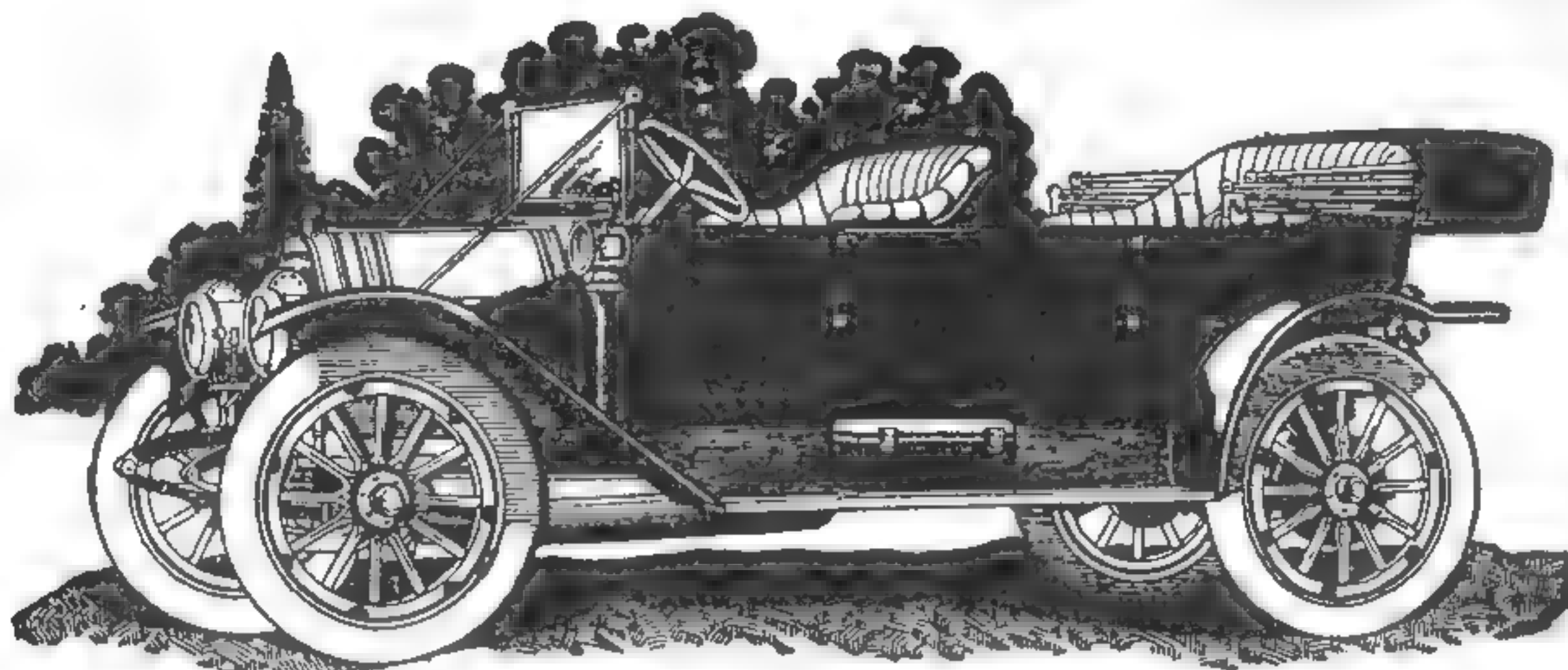
We are also agents for 18 makes of new cars and can take your machine in partial payment. Write for particulars.

NYBERG AUTOMOBILE WORKS, INC., 2435 MICHIGAN AVE.

TELEPHONE CALUMET 1853.

CHICAGO, ILLINOIS

February 1912

HAYNES*Model 21, 40 horsepower, 5-passenger
Touring Car. Fully Equipped, \$2100.*

Full Efficiency at Minimum Cost

WHEN considering the Haynes Car, please lay aside all question of price for a moment and think of what you buy when you buy a Haynes. Cars for which you are asked to *pay more*, offer—at best—only *more* of what the Haynes gives, *more* perhaps but not *better*. They are *not built better* than the Haynes; they are not built more *carefully*.

And cars which you can buy for less than the Haynes cannot possibly give you as much. If they are as *big* as the Haynes they must be *cheapened* somewhere. Maybe in parts and places that you *can't see*, but *cheapened just the same*. They may be excellent cars *for the price*, but you face this single question: whether their price buys *enough* of what you demand in an automobile.

Without any desire to belittle those cars which sell for more, or decry those which sell for less, we want to *insist*—and *prove its truth* at your convenience—that *the Haynes Car at the Haynes price represents full efficiency at the minimum cost*.

The Haynes line for 1912 offers a wide choice of body types built on the two standard Haynes chassis: Model 21, 4½ x 5½ motor, 120 in. wheel base, 36 in. x 4 in. tires, and model Y, 50-60 horse power, 5 x 5½ motor, 37 in. x 5 in. tires, 127½ in. wheel base. Touring, Suburban, Coupe and Limousine types, \$2100 to \$3900.

Catalog and address of Haynes dealer nearest you, sent on request.

HAYNES AUTOMOBILE COMPANY, Dept. S.M., Kokomo, Indiana

1715 Broadway, NEW YORK

1702 Michigan Ave. CHICAGO

Overland

Compare the Facts

A 5-Passenger 45-Horsepower Car—\$1500

WHILE making a mental calculation as to the worth of an automobile take a short cut direct to the facts. Don't mince matters. Don't permit sand to be thrown in your eyes. See that the car looks good to you, then get to the point. Get the essentials—the wheel base, the size and actual power of the motor, the seating capacity, what the car is made of and how, kind of bearings, etc. Balance all of these facts against the price asked as compared to other cars and you get your answer.

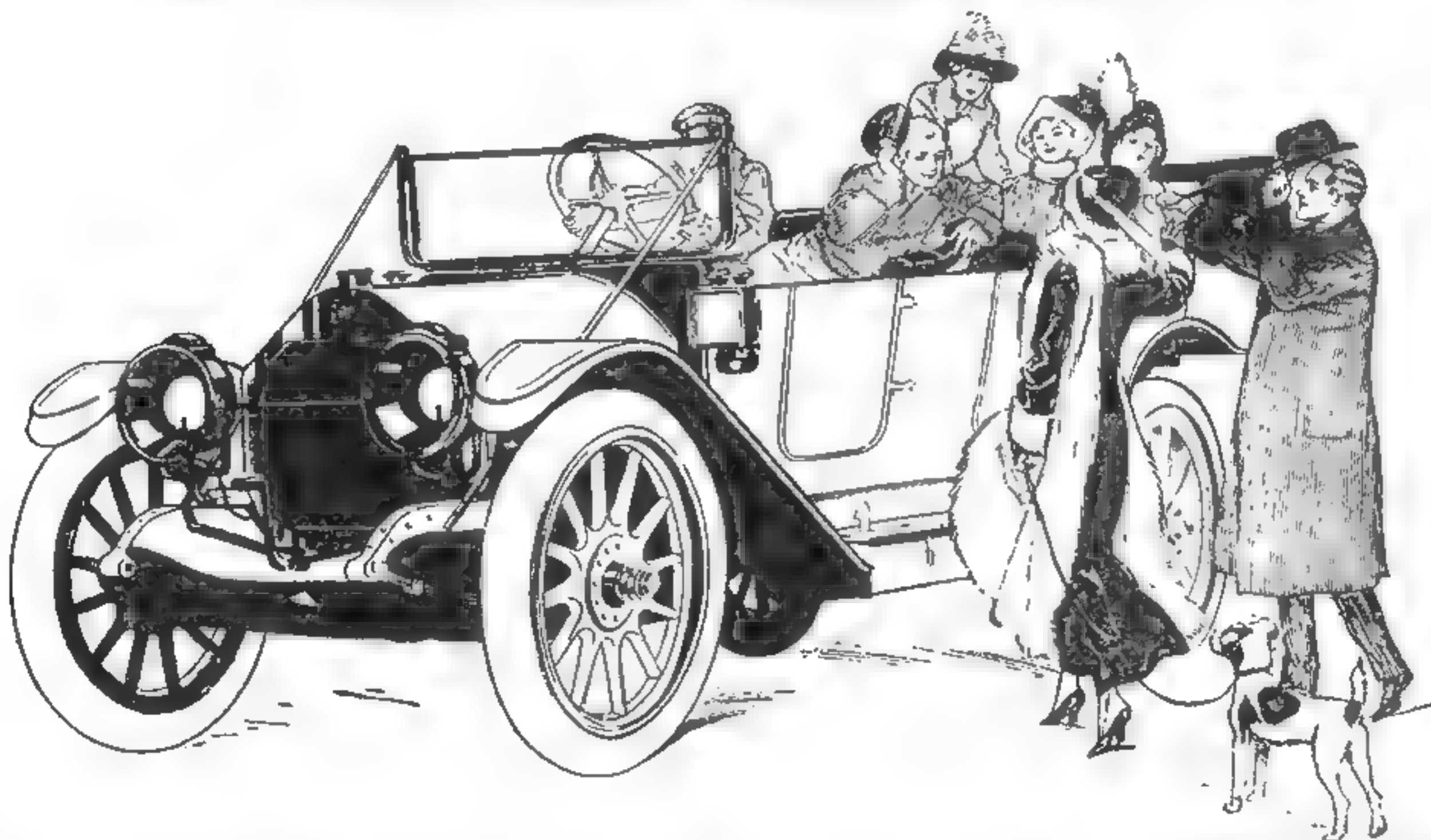
¶ The Overland Model 61 at \$1,500 is all anyone would want in a high powered car. It has a powerful forty-five horsepower motor, seats five large people. Has a wheel base of one hundred and fifteen inches, Timken bearings in axles—F & S annular bearings in transmission. Crank and gear casings are of pure aluminum. Pressed steel frame has a double drop. The magneto is a Bosch. Big tires and wheels.

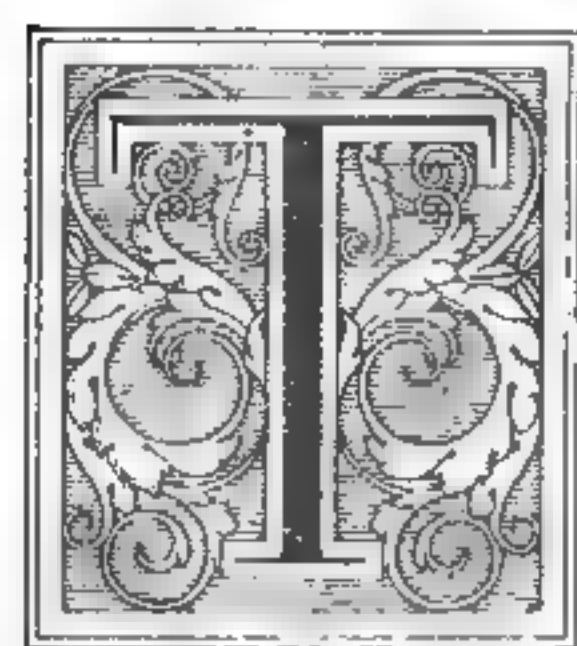
¶ Its appearance could hardly be more striking, finished in that rich dark Brewster green, with all of the bright metal parts heavily nickel plated. The lamps are massive things in dead black enamel nickel trimmed. Equipped with our simple, reliable self-starting system only \$20 extra.

¶ No other similar car made with these specifications will be found at less than \$2,000. If \$1,500 will buy you about as much as \$2,000, why pay \$2,000?

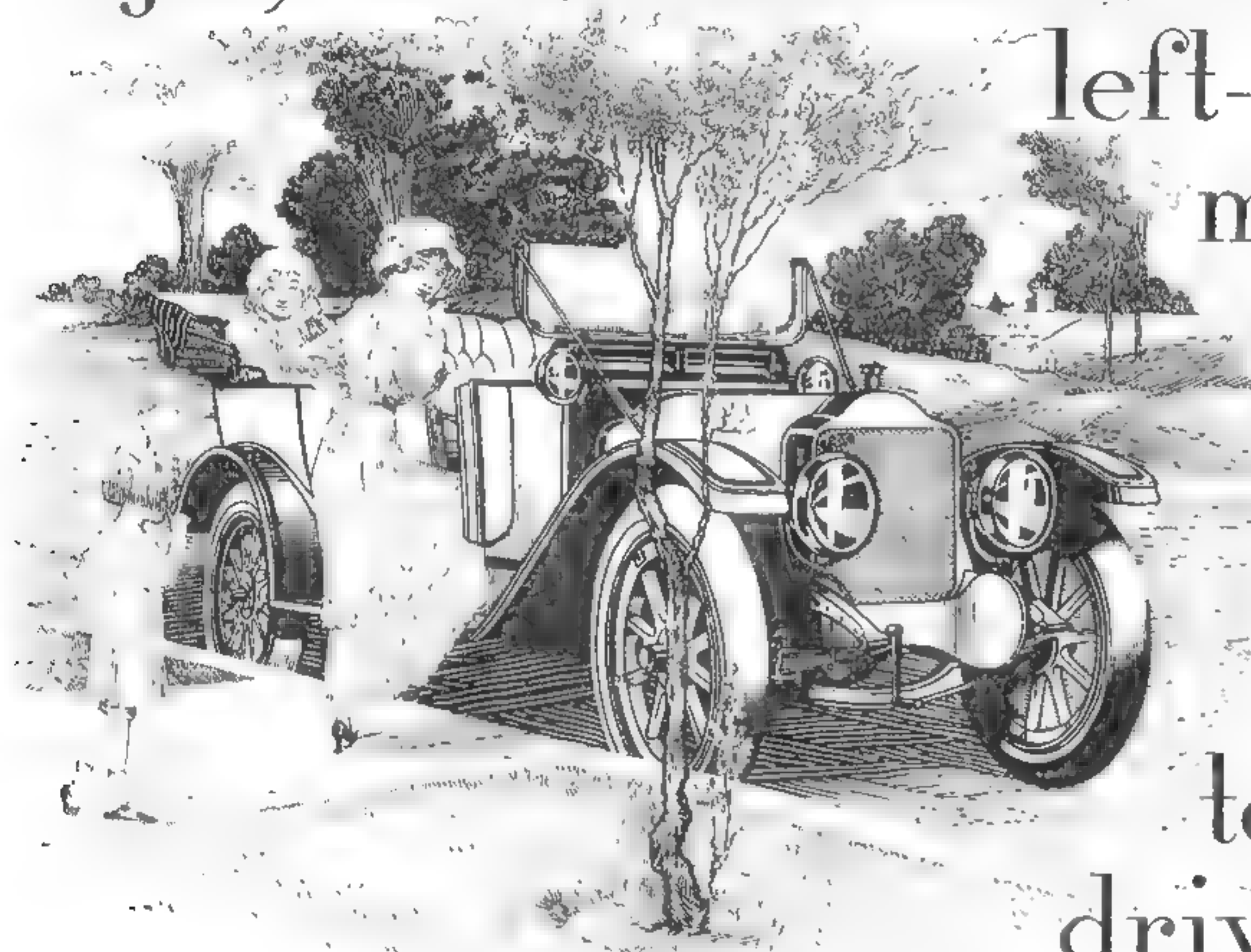
¶ See this car and be convinced. The Overland dealer in your city will give you all the facts and a demonstration. A postal to us will bring you a book. Please ask for catalogue H13.

The Willys-Overland Company, Toledo, Ohio





he realization of the car you would build for yourself is more than fulfilled in the WHITE self-starting SIX. ¶ Its WHITE electrical starting and lighting system, combined with the logical

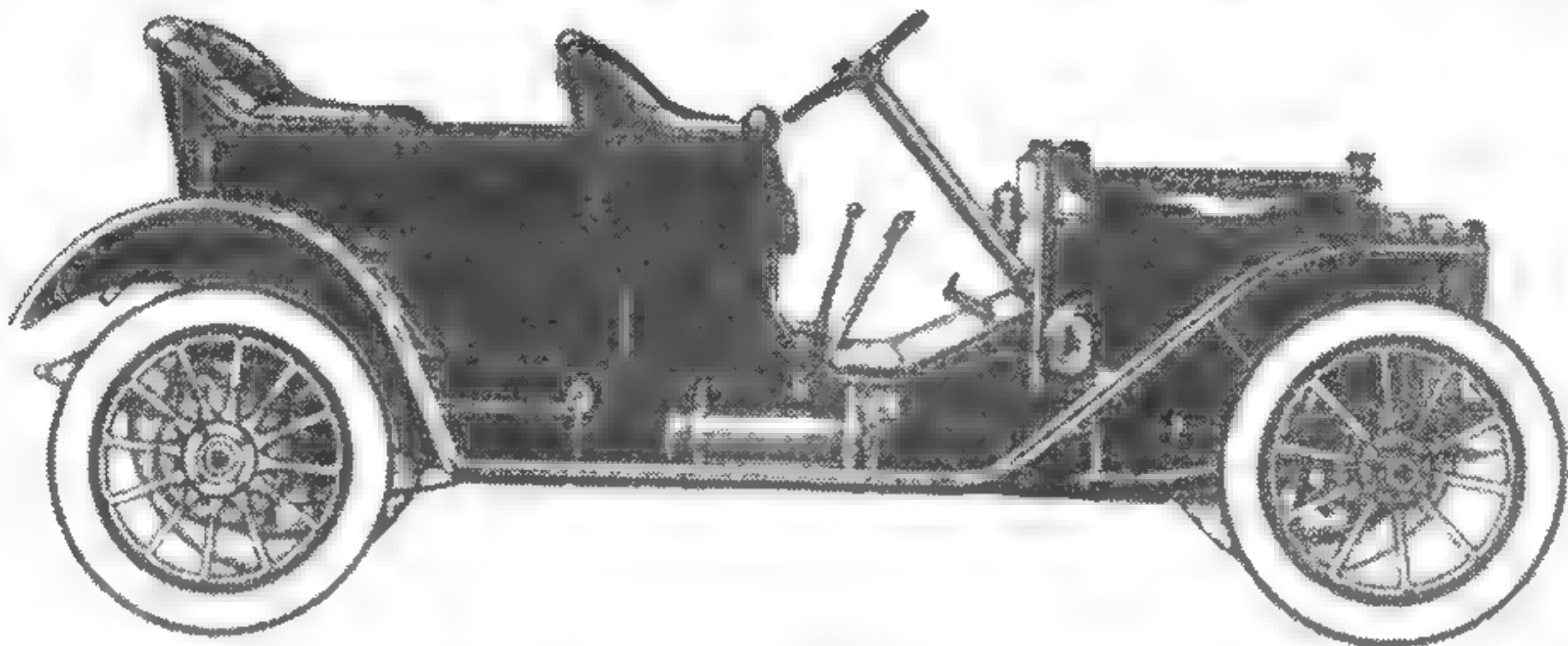


left-side drive makes it possible for the first time in motor car history, to reach the driving seat,

start and light the car without stepping into the roadway. ¶ A ride in this carefully built and beautifully finished car will convince you that its design, for comfort, convenience and mechanical perfection is supreme in the art of motor car construction. ¶ The White Company. Cleveland.

THE MARMON

"The Easiest Riding Car In The World"



Winner of the Big Events

A majority of the important racing events of the season thus far have been won by the Marmon. Among them are:

WHEELER & SCHEBLER TROPHY.

Open event up to 600 cubic inches, minimum weight 2,300 pounds, 200 miles in 166½ minutes, the record time for America; one stop for oil and gasoline only. Record.

ATLANTA SPEEDWAY TROPHY.

301 to 450 cubic inches; 200 miles in 186½ minutes without a stop.

LOS ANGELES \$1,000 PRIZE.

Open event up to 600 cubic inches; 100 miles in 76 minutes 21.9 seconds, an amazing rate of 78.6 miles per hour, without a stop; a record likely to stand or a long time to come.

LOS ANGELES TWO HOURS' RACE.

Open event up to 600 cubic inches; 148 miles in 120 minutes without a stop.

REMY BRASSARD AND REMY GRAND TROPHY.

50 Miles, 201 to 300 cubic inches.

Marmon won first and second without a stop. Time, 42:31.33. (Class record.)

National Track Records Held by the Marmon

Regardless of Class.

All records from 55 miles to 200 miles.	
100 miles.....	1:16:21.9
150 miles.....	2:02:16
200 miles.....	2:46:30

301-450 Class (Stock).

20 miles.....	15:57.63
30 miles.....	24:18.15
40 miles.....	32:30.37
50 miles.....	40:28.1
60 miles.....	48:21.74
70 miles.....	56:17.4
80 miles.....	64:18.7

231-30 Class (Stock).

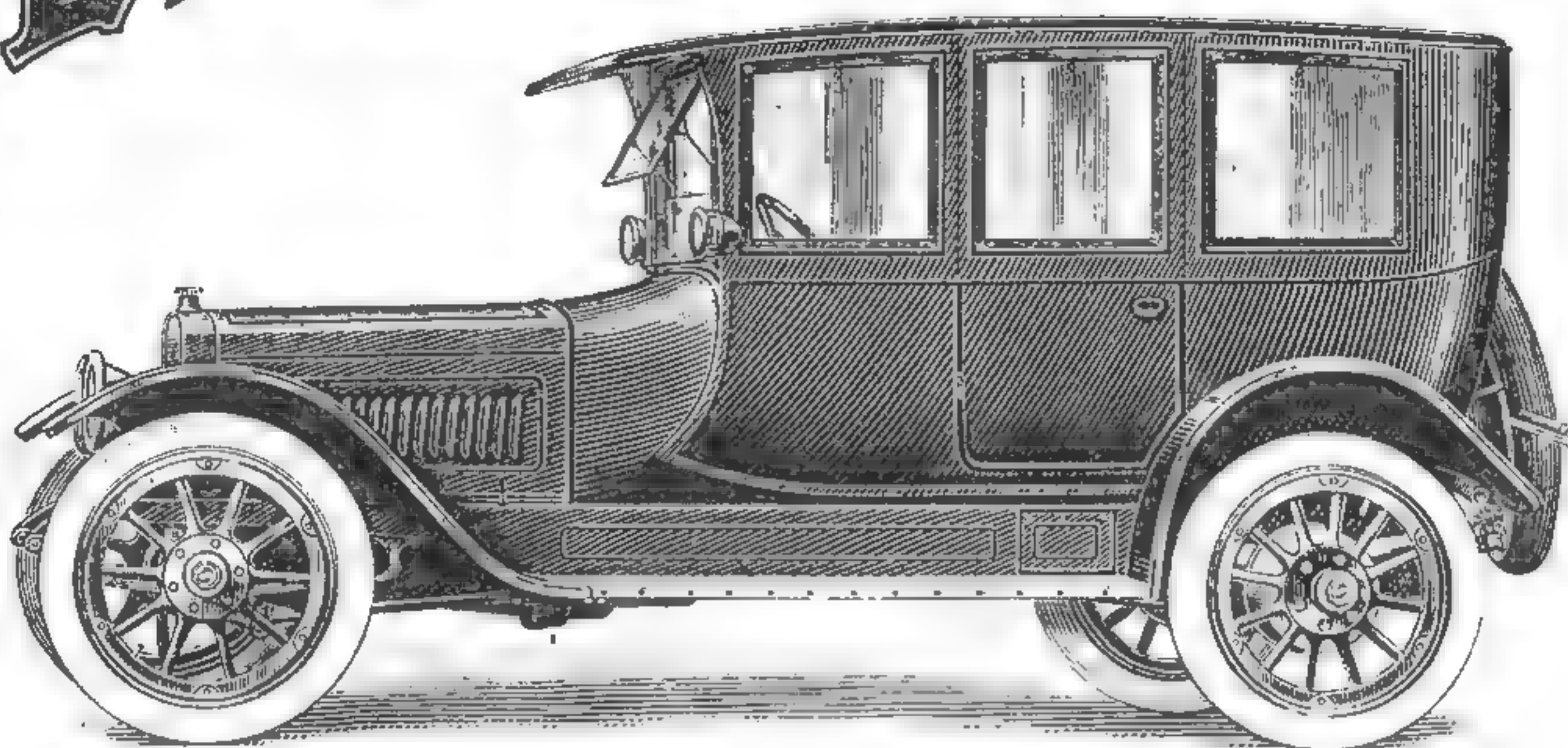
5 miles.....	4:04.13
10 miles.....	8:16.8
25 miles.....	21:48.9
30 miles.....	26:06.11
40 miles.....	34:25.4
50 miles.....	42:31.33
60 miles.....	53:53.12
70 miles.....	1:03:01.23
80 miles.....	1:12:08.43
90 miles.....	1:21:12.06
100 miles.....	1:30:08.31
110 miles.....	1:40:14.85
120 miles.....	1:49:26.94

We know of no other car that holds so many important records made in the stress of competition. Nearly all of these victories were won from larger and more powerful cars. No other car has made so many long non-stop runs at such high rates of speed. No other car has given such a demonstration of thorough mechanical excellence and tire economy. Marmon success is due largely to correct design—a well-balanced car—the best of material—refined workmanship and an un-failing oiling system.

NORDYKE & MARMON CO. (Estab. 1851) Indianapolis, Ind.

Licensed under Selden Patent

March 1913

LOZIER*"The Choice of
Men Who Know"*

Lozier "LIGHT SIX" Metropolitan, \$4450

JUST as Lozier power and strength and speed have made it pre-eminent as a touring car, so the extreme flexibility of Lozier motors and the ease of handling in city streets have made it pre-eminent as a town car.

In this, the sixth successful season of Lozier Sixes, we offer for the first time a Lozier Six—and it is a *true* Lozier—for less than \$5000.

"BIG SIX"—88 Actual Horse Power—Left-side Drive, Center Control, Electric Lighting. Touring models and roadster, \$5000. Limousines and Landaulets, \$6500.

"LIGHT SIX"—52 Actual Horse Power—Left-side Drive, Center Control—Stream-line body design—Gray & Davis Electric Starting and Lighting System. Touring model and runabout, \$3250. Coupe, \$3850. Limousines, \$4450.

Catalogues mailed on request.

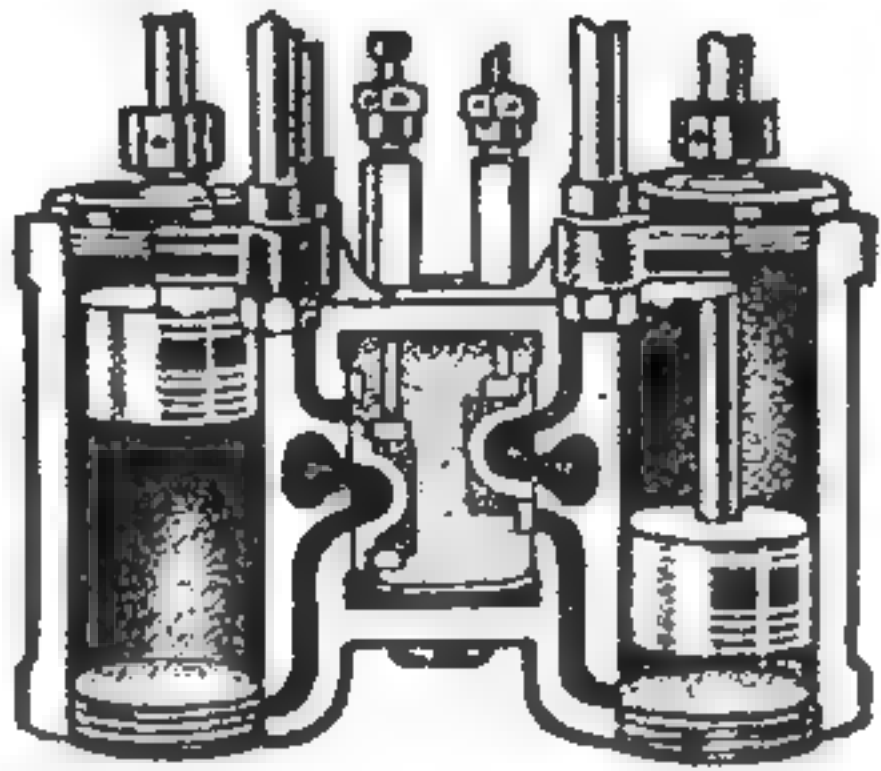
LOZIER MOTOR COMPANY, 3703 Mack Ave., Detroit, Mich.

Factory Branches in New York, Chicago, Boston, Philadelphia and San Francisco.

Dealers in all other Principal Cities.



When answering advertisements it is of advantage to mention McClure's.



The Triumph of the Steam Car

The excellent performance of the Stanley Steam Car, compared with that of the best petrol car, is scarcely realised. To drive a Stanley is simplicity itself, as the power is entirely and perfectly controlled by a single lever, instead of the usual array of clutch pedal, gear lever, accelerator pedal, ignition lever, and extra air control found on the petrol car.

The Stanley is easy to look after and cheap to maintain, as it has no gear box, no magneto, no plugs, no carburetter, and only 37 moving parts.

The Stanley Steam Car burns common paraffin, and the even effort of its engine at least doubles the life of the tyres, thus reducing running costs to half those of the corresponding petrol car.

Because the Stanley is a steam car, the power is generated before it is actually required, thus storing up a big reserve of power available for any emergency.

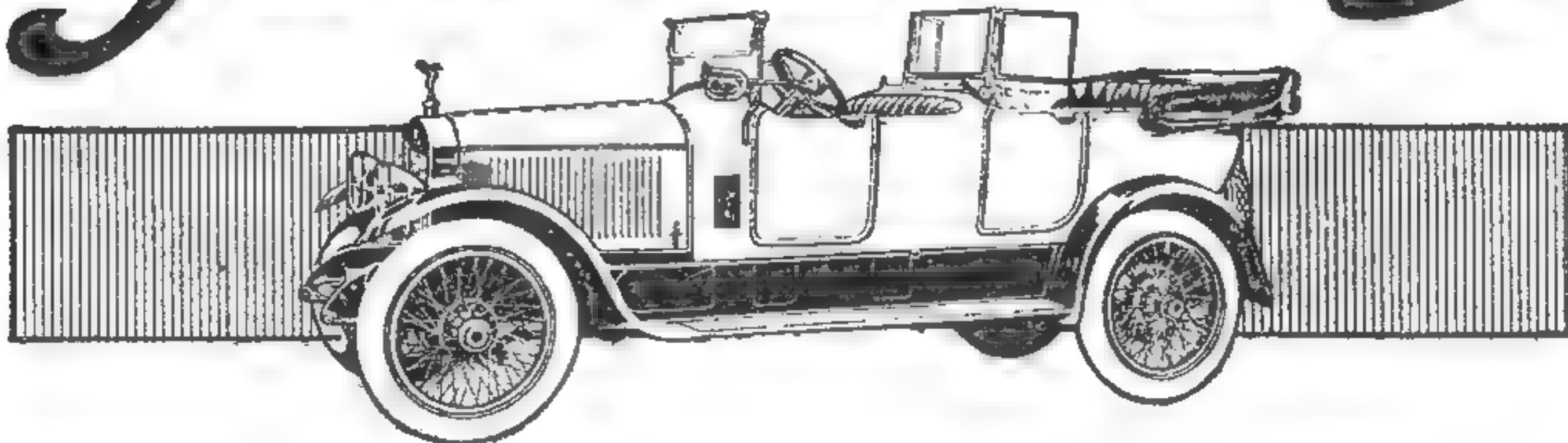
Seeing is believing. We shall welcome the opportunity of demonstrating that the Stanley is the best car under all conditions of road and traffic.

Sole Concessionnaire for Great Britain :
F. L. TRETHEWEY,
167, Shaftesbury Avenue, London, W.1.

Telephone : Regent 3298.

The Stanley

STEAM CAR

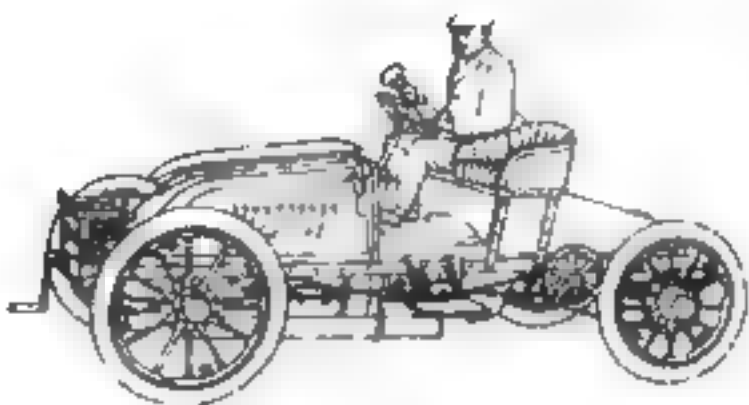
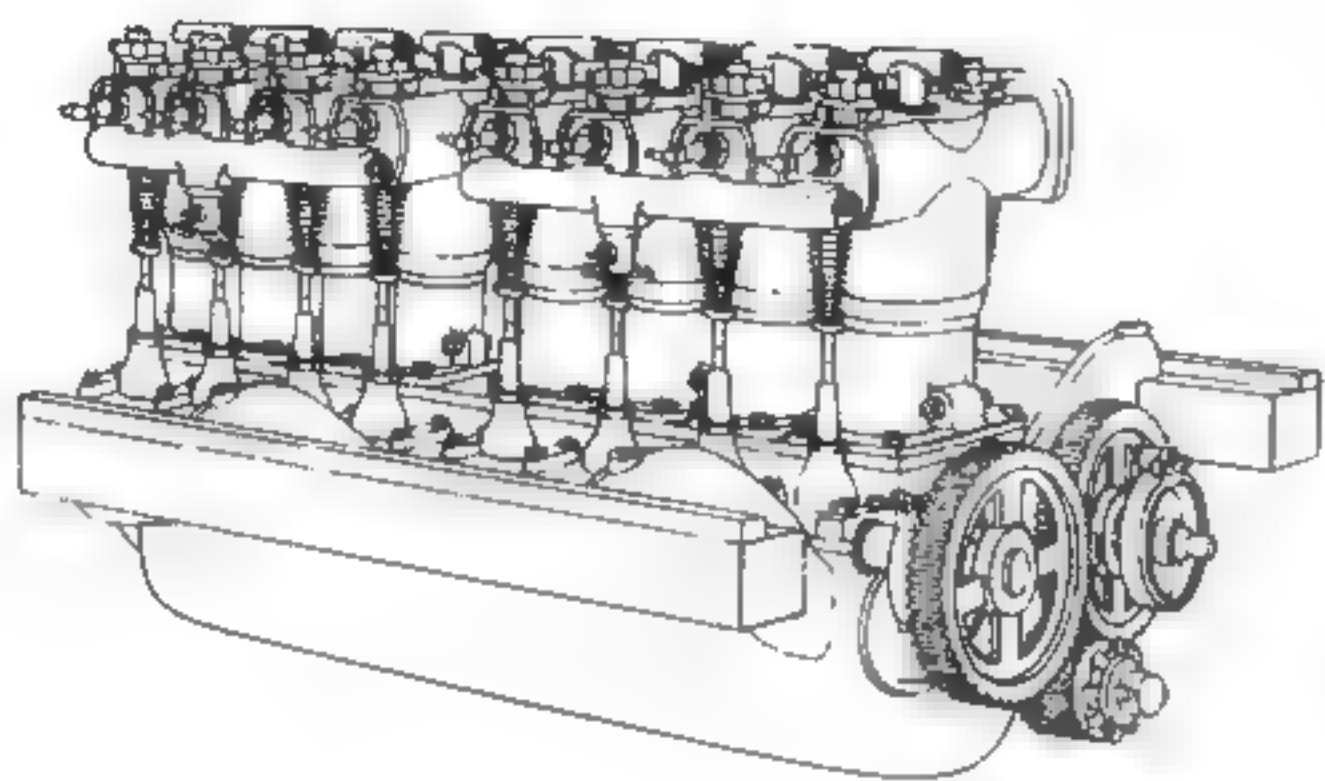


1931

AUTO-BIOGRAPHIES

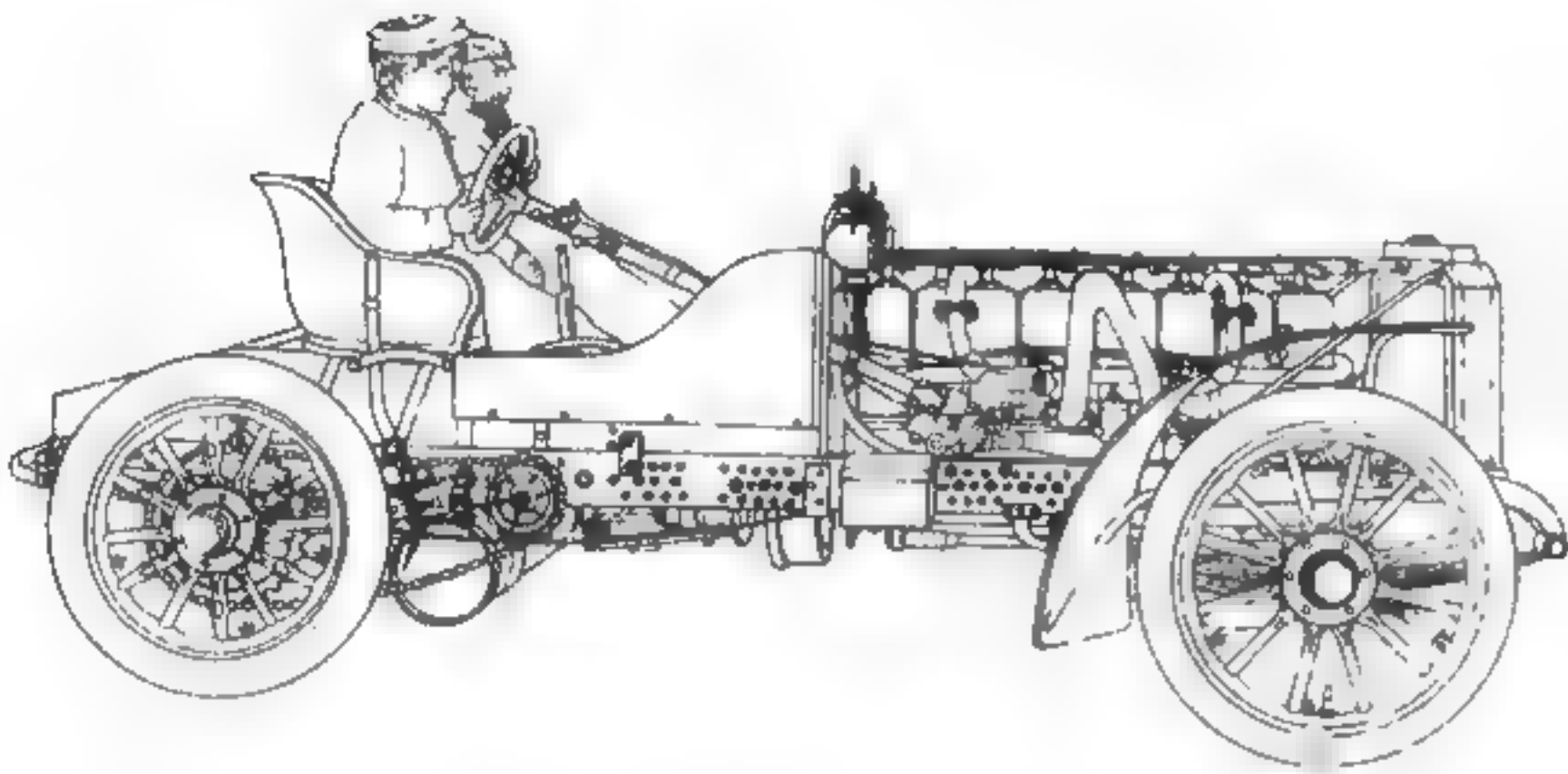
BY W. EVERETT MILLER

STRAIGHT EIGHTS



1902
C-G-V

A 40 HP ENGINE BUILT AT PUTEAU, FRANCE BY CHARRON-GIRARDOT & VOIGT, WITH SEPARATE T-HEAD CYLINDERS MACHINED FROM SOLID STEEL BILLETS, THE WATER JACKETS BEING FORMED OF SHEET BRASS. THE CRANKS WERE SET AT ANGLES OF 45 DEGREES.

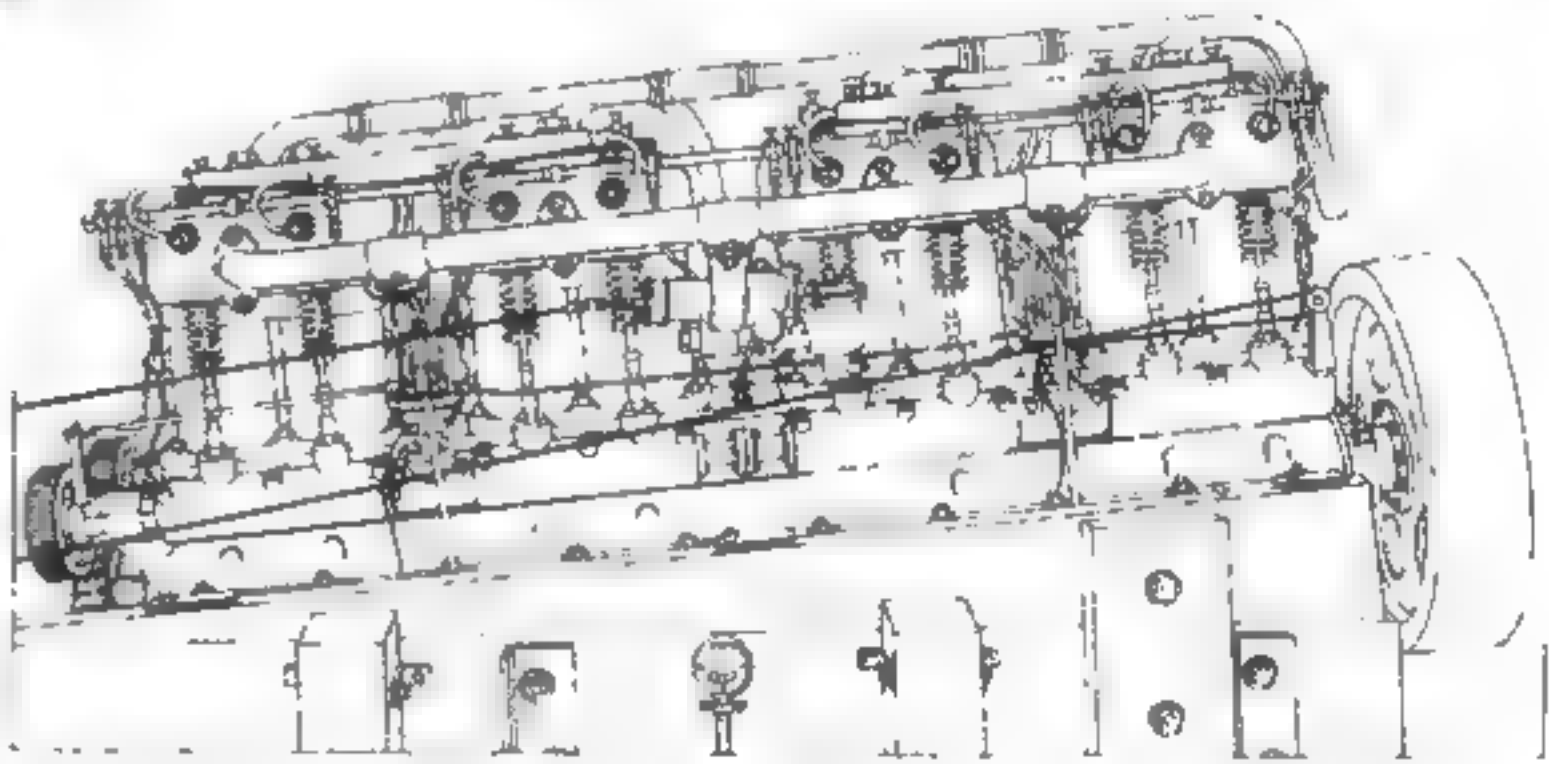


1904 BELLAMY

TO THE AMERICAN GIRL PICTURED AT THE WHEEL OF HER MONSTROUS 200 H.P. CHAIN DRIVE FRENCH CREATION, PROBABLY BELONGS THE DISTINCTION OF BEING THE FIRST WOMAN OF THIS COUNTRY TO DRIVE A STRAIGHT EIGHT.

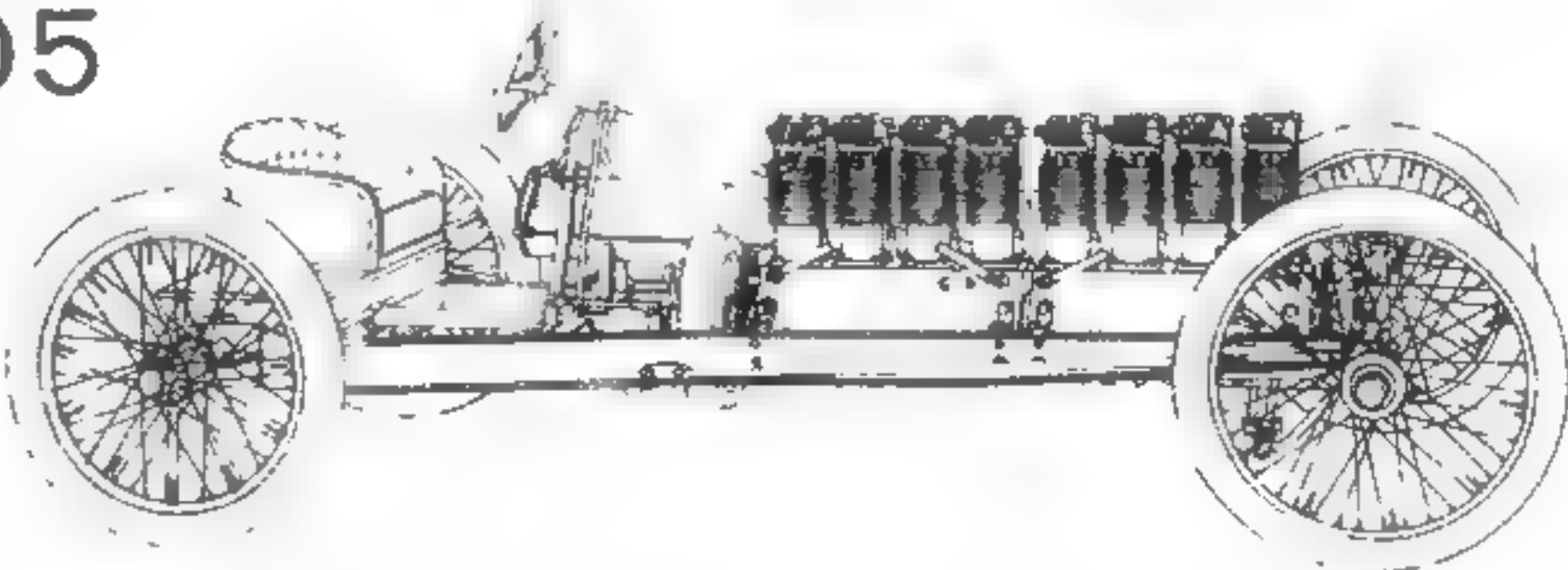
SMITH & MABLEY

AUTOMOBILE MANUFACTURERS OF NEW YORK, BUILT THIS S & M SIMPLEX MARINE ENGINE IN 1905 WHICH CAPTURED A SPEED RECORD OF 29 M.P.H. ON THE WATER.



PREMIER 1905

FROM INDIANAPOLIS CAME GEORGE WEIDLEY'S PREMIER "COMET" RACER WITH AIR COOLED ENGINE NOTE THE ABSENCE OF SPRING SUSPENSION.



1912 Woodworth Treads

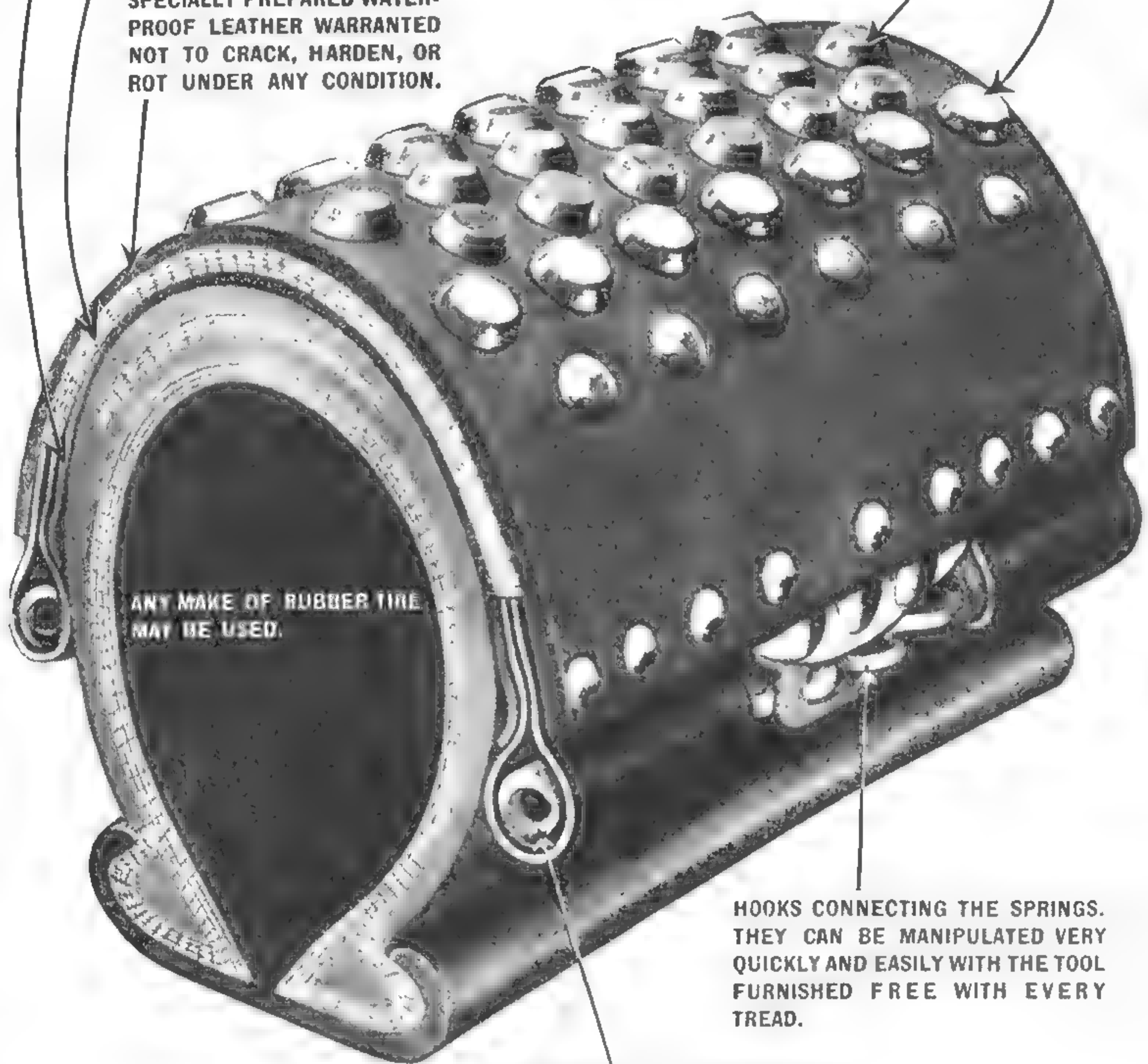
LINING OF TOUGH
CHROME LEATHER.

SOFT STEEL RIVETS WHICH PREVENT
SKIDDING ON PAVEMENTS.

REINFORCING STRIP
OF STRONG INELAS-
TIC FABRIC.

TEMPERED STEEL RIVETS, HARD AS
GLASS, GIVE EXCEEDING LONG WEAR.

SPECIALLY PREPARED WATER-
PROOF LEATHER WARRANTED
NOT TO CRACK, HARDEN, OR
ROT UNDER ANY CONDITION.



ANY MAKE OF RUBBER TIRE
MAY BE USED.

HOOKS CONNECTING THE SPRINGS.
THEY CAN BE MANIPULATED VERY
QUICKLY AND EASILY WITH THE TOOL
FURNISHED FREE WITH EVERY
TREAD.

GALVANIZED STEEL SPRINGS WHICH
HOLD THE TREADS ALWAYS PER-
FECTLY TIGHT ON THE TIRES.

Note the many valuable features of the new Woodworth Treads.

Note particularly the Quick-Adjusted fastening which enables one to apply the treads quickly and easily and which has been tested on over ten thousand treads, giving perfect results in every case. The coil springs hold the treads always perfectly tight, preventing any possibility of looseness to cause chafing or heating of the tire.

Note the hardened rivets where the wear comes—this means long life.

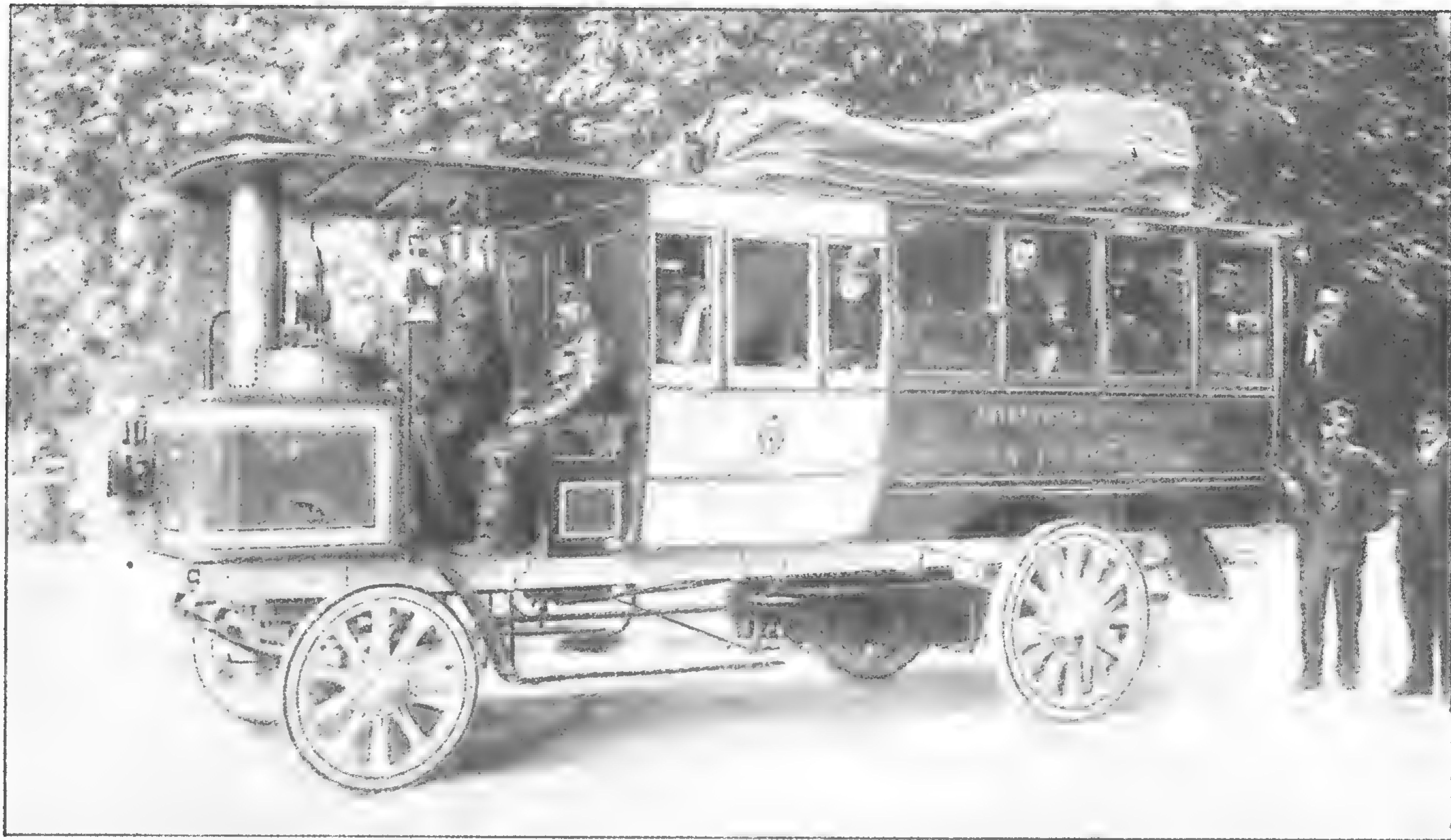
Note the treated leather—we guarantee this leather not to rot or become brittle under any conditions.

None of the features can be obtained in any tire protectors but the Woodworth Tread.

In spite of these improvements we have reduced the price to an extremely low figure.

Send for 1912 catalog showing the new prices.

LEATHER TIRE GOODS CO., Niagara Falls, N. Y.



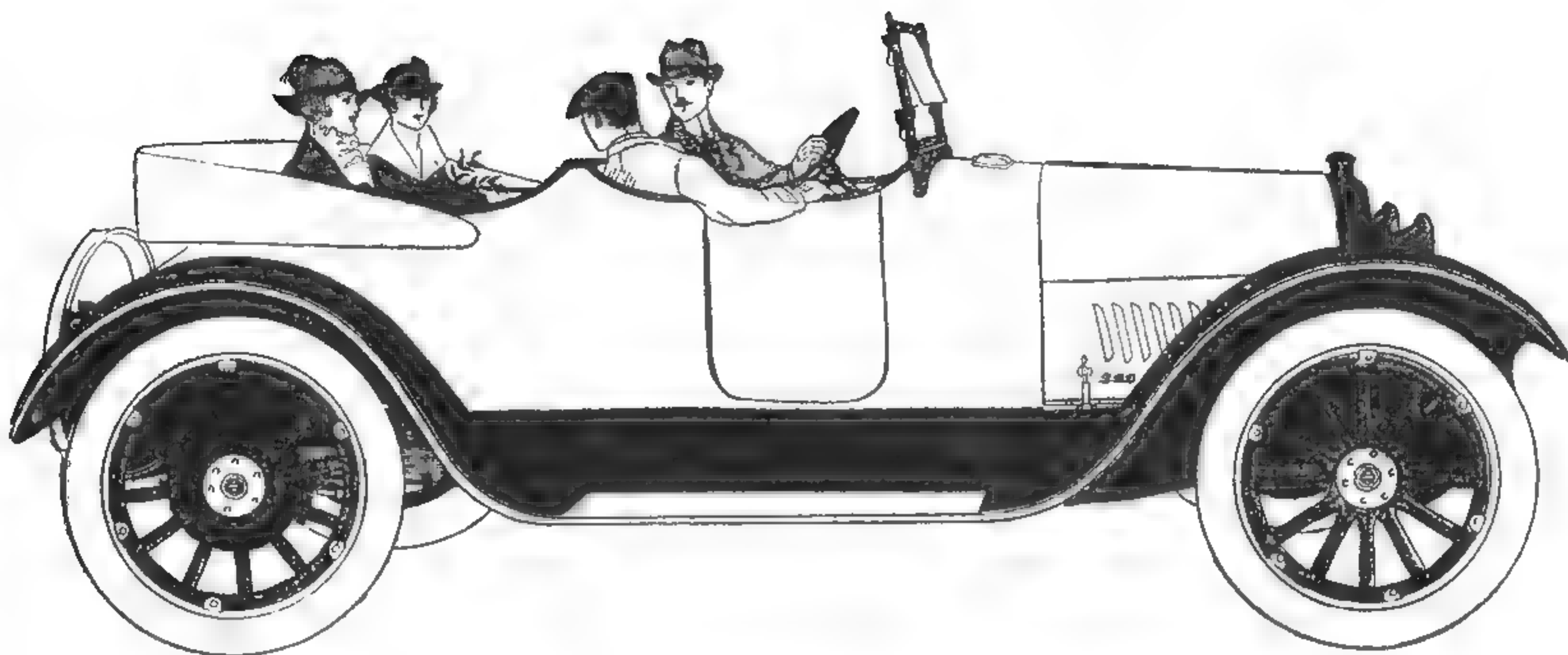
AN AUTOMOBILE STAGE WHICH MAKES REGULAR TRIPS INTO THE SUBURBS OF PARIS.

From a photograph by Barenne, Paris.

1905



V-8 OVERHEAD VALVE ENGINE



FOUR PASSENGER ROADSTER

\$1385 f.o.b. Flint

THE EIGHT MECHANICALLY

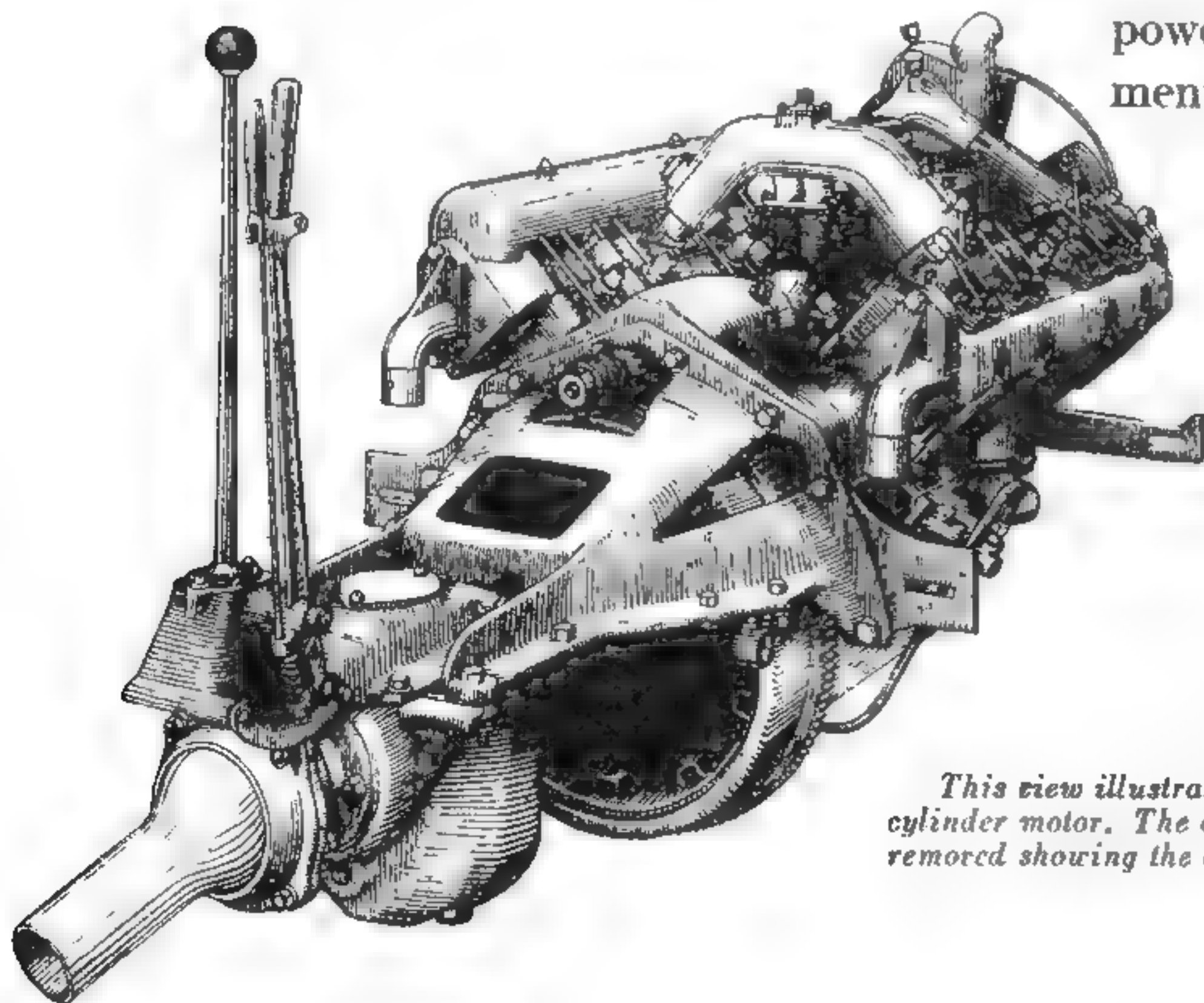
The eight cylinder motor renders maximum motor efficiency, for there is no hesitation between impulses. The motor gives you four power impulses for every revolution of the fly-wheel, an impulse for every quarter turn. The overlapping is so complete that the turning effort is practically

constant. The flow of power for this reason is steady.

An eight cylinder is never failing in power and that power is constantly under the control of the driver.

In crowded traffic one appreciates to the utmost degree the flexibility of this type of motor. Here the power plant meets every requirement for sudden changes of control.

You pick your way without labor or gear shifting. And on the straight-away, with a clear road ahead of you, an eight picks up power with startling rapidity—no hesitation whatever, proving that the claims made for this car are actually so in its performance.



This view illustrates the accessibility of the Chevrolet eight cylinder motor. The cover of one of the cylinder blocks has been removed showing the overhead valve mechanism.

The Chevrolet overhead valve V-8 car was built in 1918 and discontinued soon thereafter. Information from Chevrolet catalog.

1918

Specifications of *The CHEVROLET Eight*

Motor: Eight cylinder, valve-in-head type, $3\frac{3}{8}$ " bore, 4" stroke.

Cylinders: V-arrangement, four en bloc (one set with upper half of crank case).
Heads detachable.

Valves: $1\frac{1}{2}$ " enclosed.

Connecting Rod Bearings: $1\frac{1}{2}$ " x 1 7-16", bronze back.

Crank Shaft Bearings: Front, 3 3-16" x $1\frac{3}{4}$ "; center, 2" x 1 31-32" rear,
3 7-16" x 2".

Center Main Bearings: Bronze backed, babbitt lined.

Oiling System: Splash, with pump; individual oil pocket for each connecting rod dipper. Sight feed on dash.

Carburetor: Zenith, improved double jet.

Electric System: Auto-lite generator and starting motor. Six volt storage battery.

Ignition: New improved Remy system.

Clutch: Cone, leather-faced; 10 springs under leather.

Transmission: Selective type, three speeds forward and reverse.

Cooling: Pump system, cellular radiator.

Front Axle: Drop forged, I-beam, with integral yokes; tie rod and steering spindles of Vanadium steel; wheels fitted with large cup and cone bearings.

Rear Axle: Three-quarter floating type; heat-treated Vanadium shafts running on Hyatt roller bearings. Gear ratio: $4\frac{1}{4}$ to 1.

Brakes: Service, external, contracting, 12" drum; emergency, internal, expanding. 12" drum.

Springs: Semi-elliptic in front; semi-cantilever in rear.

Tires: 34" x 4", Goodyear, demountable, non-skid on rear.

Drive: Rear spring, double universal joints and torque rod fully enclosed.

Steering Gear: Worm gear and worm pinion wheel, 17" steering wheel.

Gasoline Supply: 20 gallon tank on rear, with quantity gauge.

Wheelbase: 120 inches.

Equipment: One-man waterproof top and side curtains with Bair brackets, windshield, sixteen candle power headlamps, two lights each; speedometer, demountable rim with extra rim, tire carrier, license holder, and complete tool equipment.

CHEVROLET MOTOR COMPANY

FACTORIES:

New York City, Tarrytown-on-Hudson; Flint, Mich.; St. Louis, Mo.; Oakland, California;
Oshawa, Canada; Fort Worth, Texas.

DISTRIBUTING BRANCHES:

Atlanta, Ga.; Kansas City, Mo.; Minneapolis, Minn.

The WING Special

A **ONE MAN** sport car for those who want something different, something out of the ordinary.

This extraordinary little car will attract attention wherever you go; it will stand out from the commonplace like a ten thousand dollar thoroughbred.

Do not attempt to compare this car with any production job. Its very features stand out as examples of craftsmanship and its lines would satisfy the most artistic eye.

Every job is really Custom Built. We only employ the highest class workmen and every part is put up according to highest tool-making standards. There is nothing lacking in finish anywhere, and the only way you can really appreciate the job is to see it, and see it perform. It is not a car to be worn out in a day, but one that will give you satisfaction for years to come.

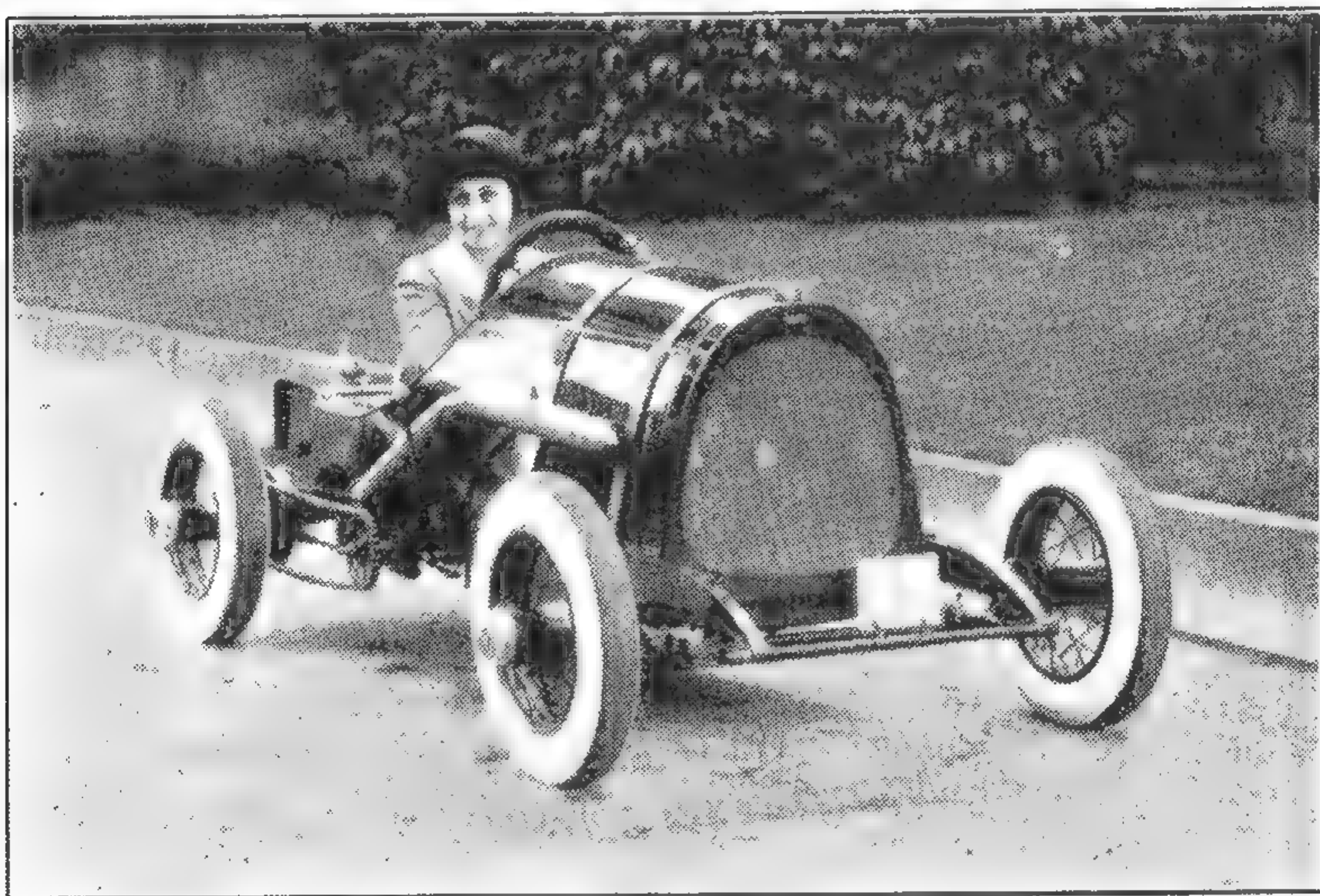
The **WING SPECIAL** is truly "*A Sport Car for the Aristocrats of Motordom.*"

Wherever fashionable people congregate it fits into the picture with that inherent charm that is the birth-right of quality and distinction.

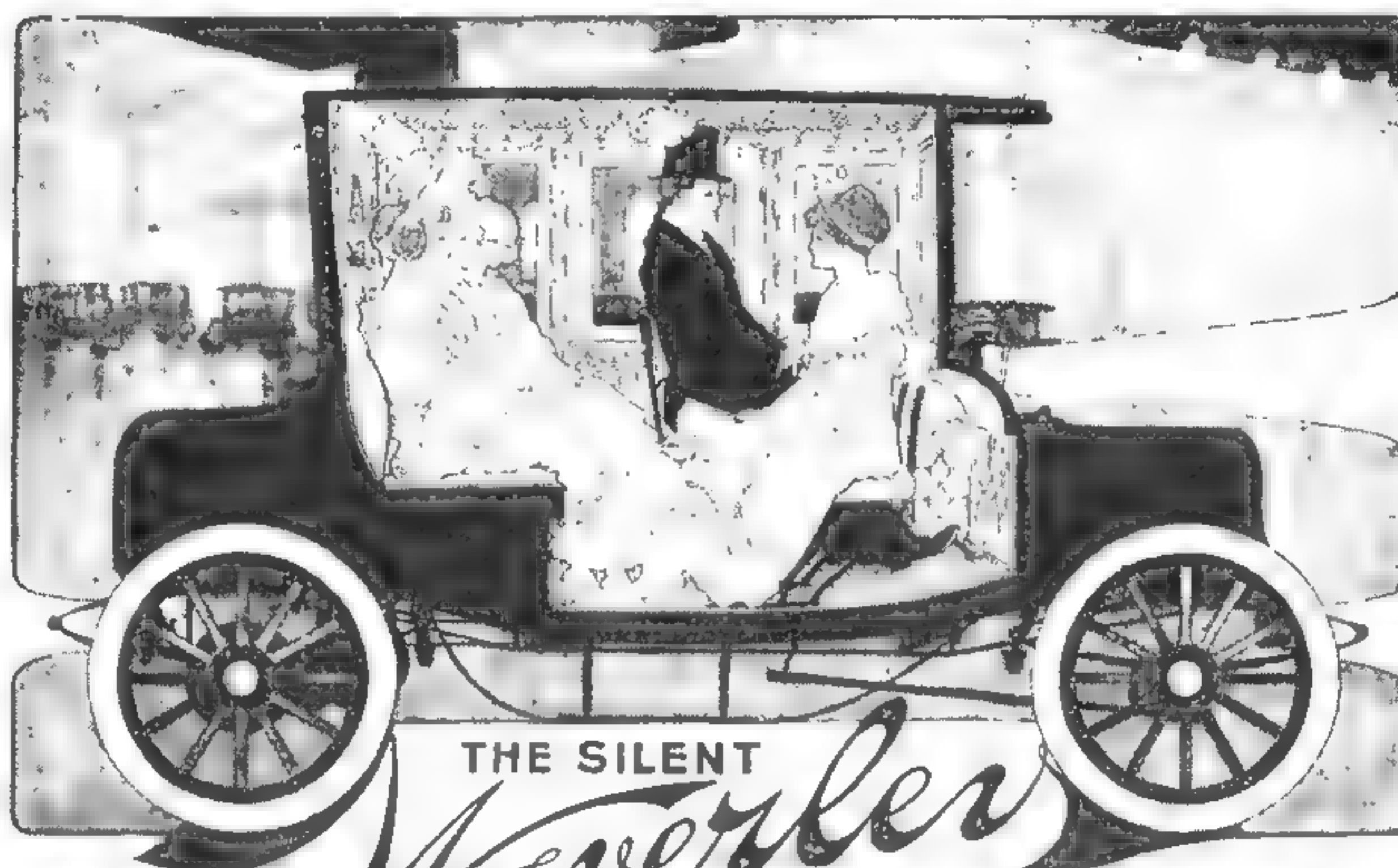
At the famous Summer and Winter Resorts in America and Europe; on the drives in the parks of our leading cities—wherever the spirit of the great out-doors is predominant—the Wing Special will add much to the joy of life and living.

If you enjoy a thrill the WING will take you over the sands of Ormond Beach at 80 miles per hour; if you prefer the more seductive pleasure of a moderate spin through Central Park, this real sport car is equally efficient.

For the WING Special is a real sport car. It drives and rides like the finest of large cars—and at a fraction of the cost. It will make 40 to 50 miles on a gallon of gas and is just as economical on tires. With its three forward speeds and reverse it is just as easily handled as your big cars.



The Wing Car was a pioneer in the "Midget" field in America. Cycle Cars were built earlier than the Wing, but they were of different design. The Wing was much like the present day Midget Race Car in design. It was built by H. C. Wing of Greenfield, Mass.



1912

ELECTRIC

**First in Shaft Drive and now
First in Five-Passenger Room with Full View Ahead**

The first successful use in numbers of the shaft drive on modern electrics was on the **Silent Waverley**.

Now all leading electrics are shaft driven or coming to shaft drive, though of very different types.

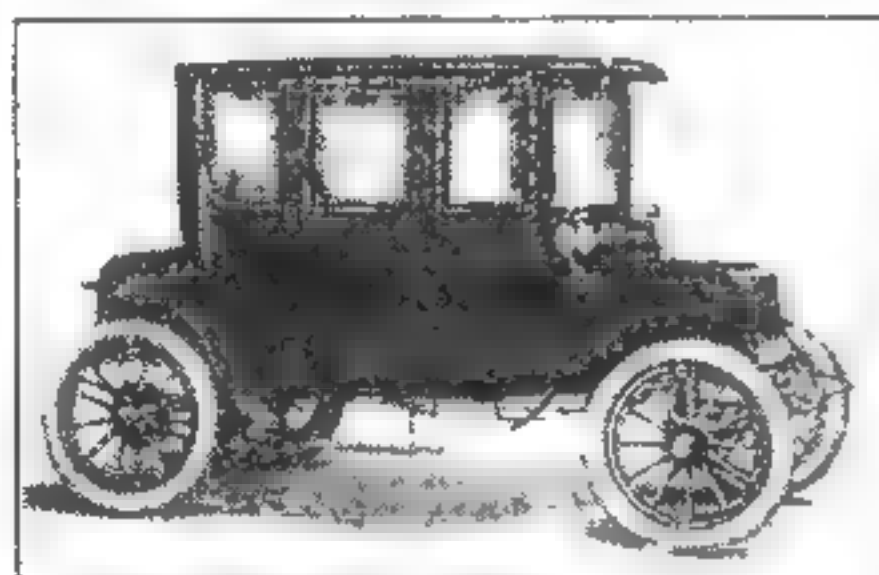
The first electric with limousine body and seat room for five adults, providing an unobstructed view for the driver, is the **Silent Waverley**.

Like the Waverley Shaft Drive, the Waverley Limousine leads the way.

There may be other electric limousines next year—but electric buyers want the town car now—and the only one is the **Silent Waverley**. Men and women—and more men than women are buying this car.

High Efficiency Shaft Drive. Full Elliptic Springs. Solid or Pneumatic Tires. Exide, Waverley, National or Edison Battery.

Write for Waverley Art Book, Richly Illustrated in Colors, Describes all the 1912 Models. The 1912 Four-Passenger Brougham has the largest interior of any electric of its type—66 inches.



The Waverley Company

Factory and Home Office, 141 South East Street
Indianapolis, Ind., U. S. A.

Largest factory in the world devoted exclusively to electrics

NEW YORK
2010 Broadway

PHILADELPHIA
2043 Market Street

BOSTON
25 Irvington Place

CHICAGO BRANCH, 2005 Michigan Blvd.

1919

BRIGGS & STRATTON CO., MILWAUKEE, WIS.

Briggs & Stratton Flyer

THIS sporty little Briggs & Stratton Flyer is one of the most popular motor conveyances ever brought out for "Young America." The Briggs & Stratton Flyer consists of a buckboard with four wire wheels equipped with pneumatic rubber tires. Two seats are provided, upholstered in Moroccoline leather. This conveyance is steered by means of a wheel, just like that of an automobile. A foot brake is provided in order to facilitate stopping the car. The steering rod, guards, rims, axle and all other metal parts are enameled red to correspond with the Briggs & Stratton Motor Wheel, except the hubs and spokes of the wheels, which are nickel-plated.

Power is derived from a Type "D" Briggs & Stratton Motor Wheel attached at the rear of the Flyer by means of a pivot pin. A lifting device is provided for the purpose of taking the motor wheel off the ground when starting or when coming to a standstill without stopping the engine. When ready to start, the motor wheel is lifted from the ground with the lifting lever and motor is started by a few turns of the wheel. Rider takes his place in the seat, throttles the motor down to slow speed and lowers the lifting device, which brings the motor wheel in contact with the ground and the rider's off.

Simple to operate and safe in the hands of any boy or girl. The throttle lever is attached to the steering wheel spider and is within easy reach of the driver.

The motor wheel is equipped with a belt-driven cooling fan, operated from the fly wheel. When the motor is started, the fan creates a strong current of cool air which is thrown against those parts of the cylinder and explosion chamber that heat up most readily under continuous high speed. The Briggs & Stratton Flyer is an ideal vehicle of transportation for young folks, although hundreds of grown-ups have taken enthusiastically to the use of the Flyer as a most convenient and enjoyable method of transportation for both business and pleasure.

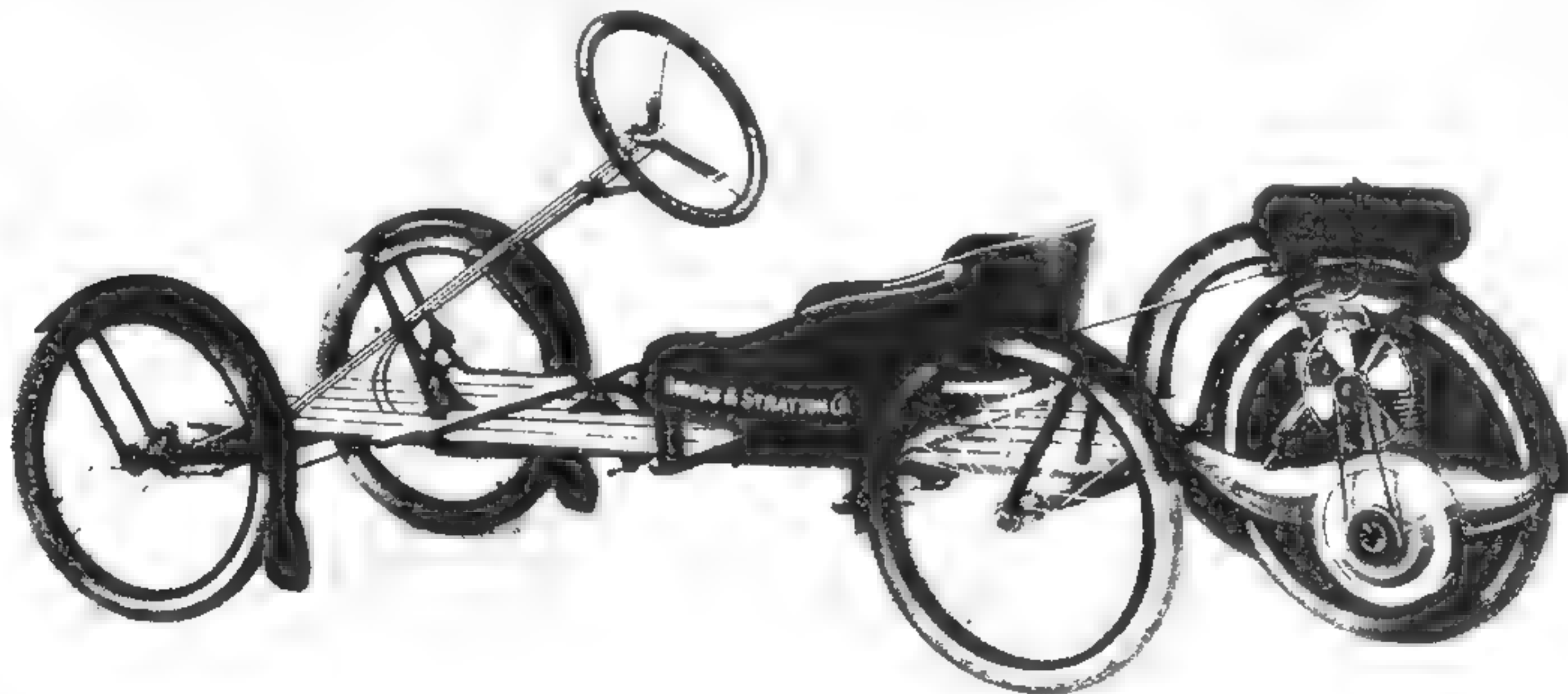
The uses to which the Briggs & Stratton Flyer will lend itself are unlimited. As a means of economical and quick delivery and for covering a large amount of territory in a very short space of time the Flyer has been the logical solution among hundreds of merchants and business men.

The Briggs & Stratton Flyer is not a toy. It is a sturdy, strongly built and highly efficient two-passenger vehicle combining all the delights of motor sport with the practical convenience of rapid transportation at an insignificant cost.

Economy of Operation

THE Briggs & Stratton Flyer is designed in such a simple and compact manner that there is small chance of any irregularities or breakdowns. The upkeep is almost negligible. The great feature which in the past has appealed to the thousands of Briggs & Stratton Flyer enthusiasts is the extreme gasoline economy.

Just imagine riding over 80 miles on one gallon of gasoline, at a rate of between 4 and 25 miles an hour, along some delightful boulevard or over a picturesque country road with a charming young lady for companion. Nowhere is greater pleasure and practicability to be had for such a small investment. These figures are not our mere opinion nor the result of our tests



CHICAGO TRIBUNE ... 1922 Thursday, Feb. 2

See the Clymer Windshield Spotlight at the Chicago Show

Be sure to see this most beautiful, useful and unique spotlight. It is the only practical spotlight yet devised for closed cars, and is highly preferable for open cars. It operates with a ball and socket joint through the windshield with control handle and switch only four inches from the steering wheel.

The following cars on display at the Show are equipped
Marmon, Moon, Haynes, Rickenbacker, Rolls-Royce

The following cars are equipped at the showrooms of the respective dealers:

**Buick
Cadillac**

**Cole
Essex**

**Hudson
Kissell**

**Paige
Packard**

Wills-Sainte-Claire

At the Denver Closed Car Show, just closed, 95% of ALL cars were Clymer equipped.

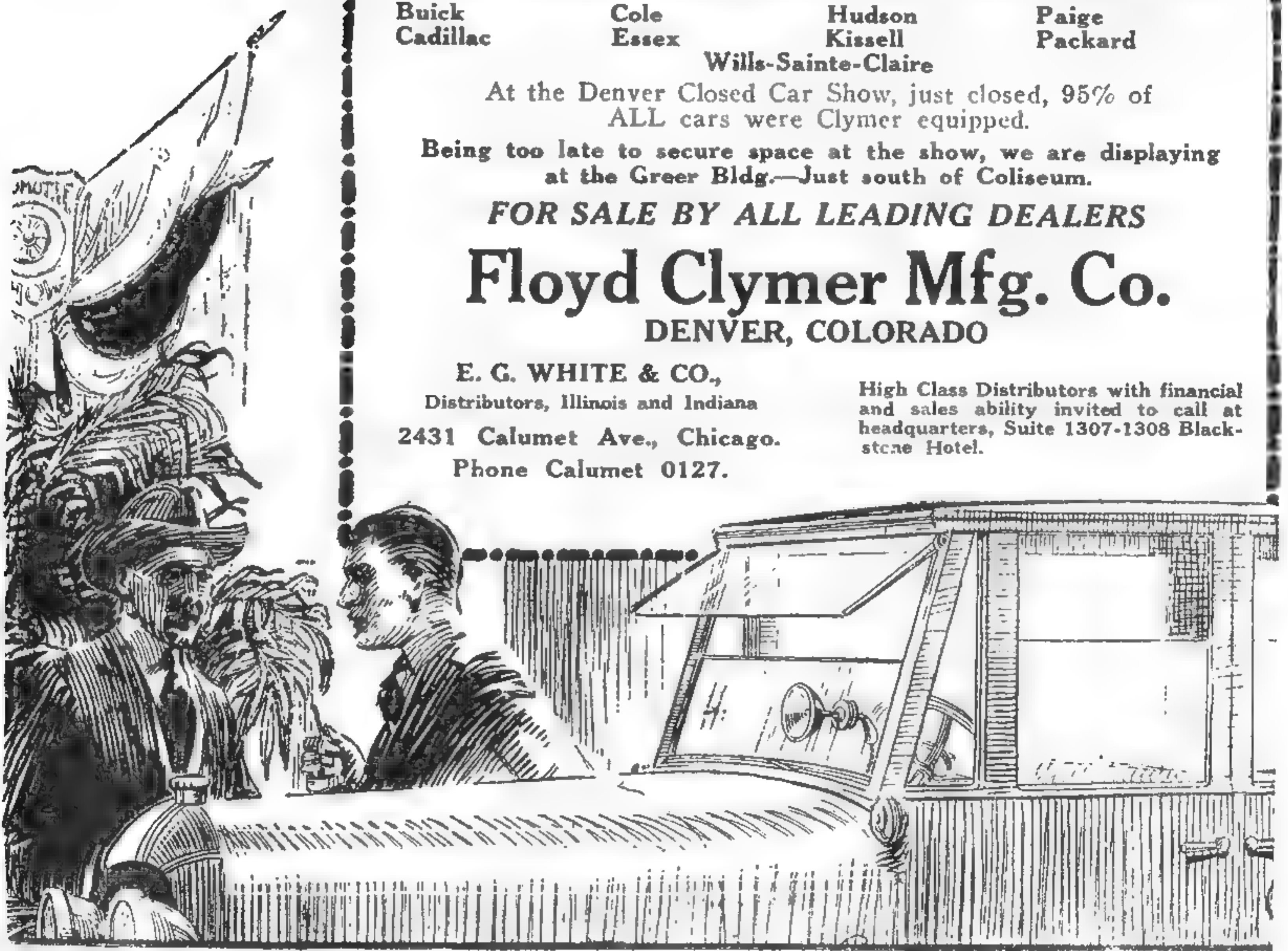
Being too late to secure space at the show, we are displaying at the Greer Bldg.—Just south of Coliseum.

FOR SALE BY ALL LEADING DEALERS

Floyd Clymer Mfg. Co.
DENVER, COLORADO

E. G. WHITE & CO.,
 Distributors, Illinois and Indiana
 2431 Calumet Ave., Chicago.
 Phone Calumet 0127.

High Class Distributors with financial and sales ability invited to call at headquarters, Suite 1307-1308 Blackstone Hotel.



For several years I manufactured the Clymer Windshield Spotlight. It was a very popular accessory in the early twenties. Almost half a million Clymer Spotlights were sold during the period of their popularity. The history of the Clymer Spotlight is an interesting story and will be told in some future number of the MOTOR SCRAPBOOK.—Clymer.

January 18, 1930

AUTOMOBILE TOPICS

AN EXPECTATION SURPASSED

It was expected that the men who now control Durant Motors would introduce a line of *good* motor cars.

That they would build honest cars. Cars of character that would serve long and economically and well—precisely the kind of cars they have been in the habit of building for many years.

It was also regarded as certain that the new Durants would bring a new response to the throttle and a new thrill to the wheel. For no group of manufac-

turers has more consistently stressed the importance of motor car performance.

That each of these expectations has been realized is attested by the reception accorded these cars wherever shown.

But few would have prophesied that Durant, or any other builder, could have produced, at Durant prices, a line of motor cars so comfortable, so roomy and so smart in line and design.

Durant has *surpassed* public expectation.

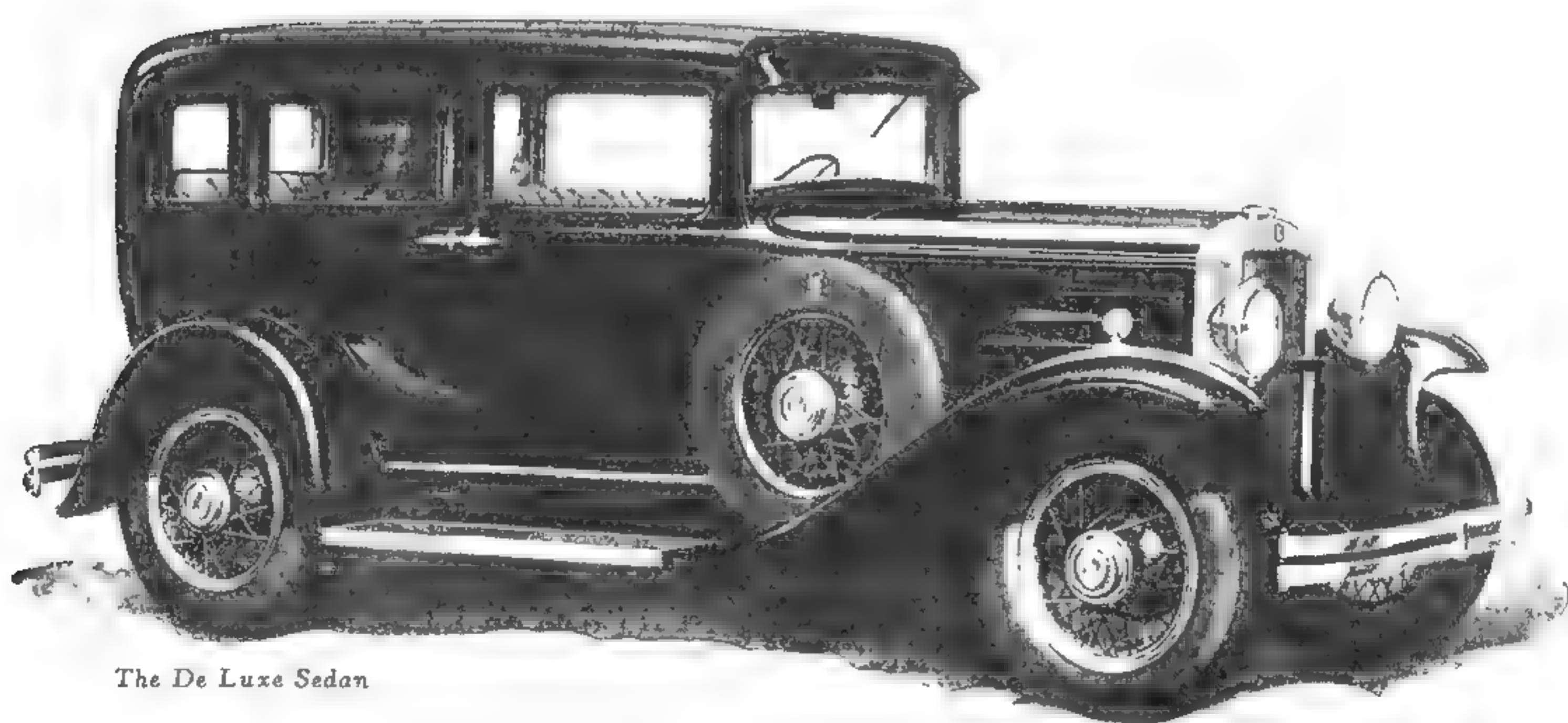
Durant Invites Established Dealers and other Responsible Business Men to Investigate the Opportunity for Permanent Profits in its New Sales Franchise

DURANT MOTORS, INC., DETROIT, U. S. A.
 FACTORIES—LANSING, MICH., OAKLAND, CAL., LEASIDE, ONT

[[Nation-wide radio program every Sunday at 7 p. m. (Eastern Standard Time) through WEA, New York and 39 associated stations of the National Broadcasting Co.]]



APPEARANCE
 PERFORMANCE
 COMFORT
 VALUE



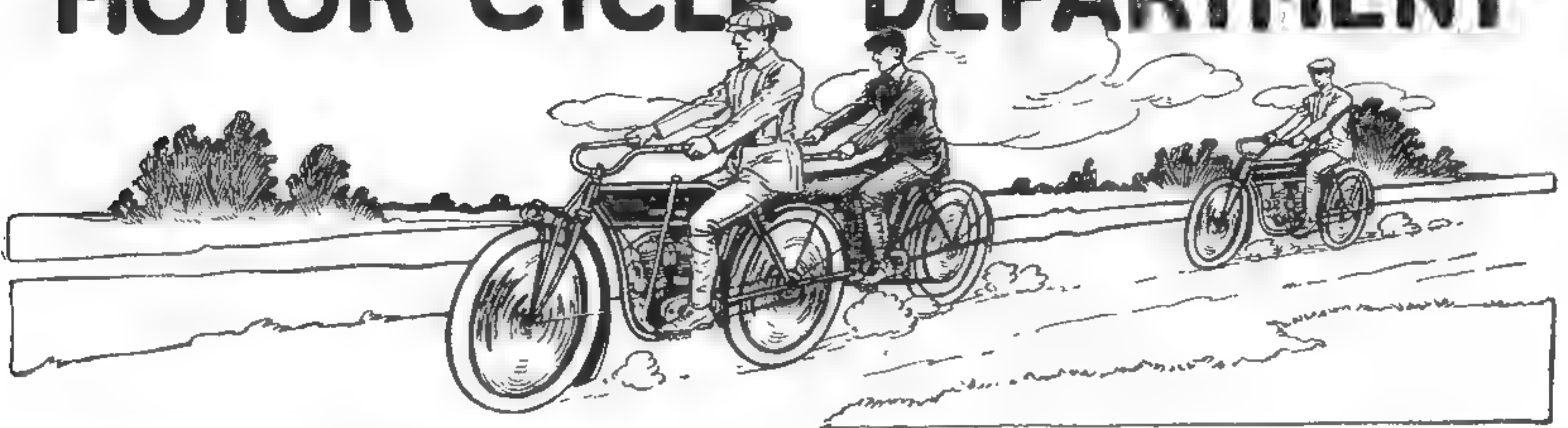
The De Luxe Sedan

DURANT

A G O O D C A R

Kindly Mention AUTOMOBILE TOPICS When Writing to Advertisers

MOTOR CYCLE DEPARTMENT



MOTORCYCLES SOLD ON INSTALLMENT PLAN

The Motorcycle Dealers' Association of Greater New York and the Motor Finance Company, at a joint meeting held recently completed arrangements whereby they will sell practically every make of motorcycle on the installment system. The proposition is that the Finance Company would finance any installment sale the dealers made and charge them a commission of 5 per cent. They would also charge the customer 10 per cent. in addition to the list price of the machine he purchases, so that in case of a \$200 machine the dealer would receive \$190 from the Finance Company, while the purchaser would be charged \$220, thus making a profit of \$30 on the sale. The Motor Finance Company would attend to all the collections and would relieve the dealer of all responsibility attached to the sale. Although the initial price to be paid by the purchaser has not been fixed, it is thought by the dealers that a deposit of \$75 will be about right and that \$5 a week should be the subsequent payment.

All installment sales will be made subject to the approval of the Finance Company, which will investigate a prospective purchaser, and all installment sales made by the dealers are to be done through that company. Where a purchaser defaults on payments and a machine is reclaimed by the Finance Company, the latter will turn the machine over to the dealer handling that particular make, to be sold for its account, and at its risk, at the best price which can be obtained. The Finance Company is now at work on a contract that has to be signed by the purchaser. The agreement made with the Finance Company relates only to dealers in the association and outsiders are to be excluded from the privileges accorded the organized.

MERKELS REDUCED IN PRICE

The Miami Cycle & Manufacturing Company has made a reduction of \$25 on all its models. The 7-twin now sells at \$300, the 6-twin at \$275 and the 4 single magneto at \$225. It is not definitely stated whether these prices will apply to 1912 models or not.

MOTORCYCLIST "PROTEST" PARADE

In all the brief but vital and interesting history of motor cycling there has been no such striking demonstration as that in New York on Labor Day, September 4, when motorcyclists and bicyclists to the number of some two thousand "paraded" over the historic cycle path to Coney Island—a path that Park Commissioner Kennedy has proposed to confiscate.

The announcement of the Park Commissioner aroused a prompt storm of protest, and this storm took the form on Labor Day of the first parade of motor-driven "single-trackers" ever seen in New York City. Well to the front—in fact, just behind the Grand Marshal and his aids and the motorcycle and bicycle police—came the motorcycle division, headed by Dr. J. P. Thornley, of New York, chairman of the Competition Committee of the Federation of American Motorcyclists. Motorcycle after motorcycle stretched behind him, all in orderly array—a dignified and emphatic protest against the proposed confiscation of the path upon which they rode. Behind them came the bicycle riders, singly and in groups. It was a parade New York will not soon forget, and one, the riders believe, that will cause Commissioner Kennedy to see things in a new light. Prizes were awarded to many of the riders, and the occasion served to bring to the front again "Happy Days" Pitman and other stars of the days when the bicycle was king.

The Shickel Motorcycle Company, which introduced its 2-cycle machine at last winter's Chicago Show, has taken a factory at Stamford, Conn., and is installing machinery. It is expected that 50 machines will be built in time for the New York Show.

PRIZES MUST BE REAL GOLD

In the future promoters of race meets will have to specify whether the watches or other jewelry offered to the winners is gold plated or solid gold. Dr. Thornley received numerous letters from riders complaining about the class of prizes they had received, and he has therefor taken action as above.

MOTORCYCLE NEWS OF THE PAST

By Floyd Clymer

Indian once had a self starter—a Hendee Special—about 1912—prior to that they had a hand cranked model, a 2-speed DeLuxe job.

* * * * *

Harley-Davidson once used a 2-speed and a clutch in the rear hub. In 1913 their first chain driven single was called “5-35”—“5” for H. P. and “35” for cubic inch displacement.

* * * * *

Spring frames were once popular on American motorcycles—Merkel, Pope and Indian used them. Merkel had two enclosed coil springs in the upper frame tube. Pope had open coil springs at the end of the frame. Indian used a leaf spring on each side of the frame.

* * * * *

Most early motorcycles had a drip oiler. Turn the valve and the oil dripped through a glass. One early make, the Thomas Auto-Bi, advertised that you could “oil the machine without dismounting.” SOME feature!

* * * * *

Dual valve engines were once used by both Indian and Harley-Davidson in their racing machines. Both makes had a four valve single and an eight valve twin overhead. Indian used valves of different sizes and they were in a flat head. Harley-Davidson used a roof overhead similar to their present 61 o.h.v. design, excepting that four valves per cylinder were used. The singles were used mostly on half mile tracks, the twins on mile and larger tracks and speedways.

* * * * *

Excelsior once built an overhead twin racing machine, and also tried out an overhead camshaft job.

* * * * *

In early days “Cannonball” Baker made a fortune riding motorcycles across the U. S. for records. He rode at various times Indian, Ace, Nearcar. Later he drove Cadillac, Templar, Franklin, Jewett, Crosley and other cars across country for records.

* * * * *

Few know that the front wheel brake on a motorcycle was first used on the Wilkinson Motorcycle built in 1911 in London, England. It was operated by a handlebar lever, and in appearance was similar to conventional design.

* * * * *

Thor Engines were used by many of the first makers of motorcycles in America, including Indian and Reading-Standard.

* * * * *

Reading-Standard, built in early days at Reading, Pennsylvania, had an advertising slogan “Built and tested in the mountains.” Competitors used to change it to “Built in the mountains and tested down hill!” It was a good machine in its day. Erle “Red” Armstrong, now with the Indian factory, was once the Reading-Standard dealer in Denver, Colorado. He also handled Thor. Then he went with Excelsior as a racer and later with Indian, where he has been for so many years that the youngsters think of Red as having always been with Indian. Taint so, my lads, taint so!

* * * * *

Ab Jenkins, former Salt Lake City Mayor and holder of the world’s long distance speed records in the Mormon “Meteor” on the salt beds of Bonneville, Utah, was once a motorcycle racer. Ab owned and raced Excelsiors in Utah and

Idaho in 1912 and 1913. He was especially good on half mile dirt tracks. Ab is only one of the many famous car drivers and aviators who secured his early speed experience on motorcycles.

* * * * *

Henderson Brothers, Tom and Will, were automobile manufacturers before they started building motorcycles in Detroit. They were related to Alexander Winton, builder of the early Winton car. They later sold out to Schwinn of Excelsior and soon retired from the motorcycle field. Will was killed in an accident.

* * * * *

Glenn Curtiss, pioneer airman, once built motorcycles. A single and a twin were made at Hammondsport, New York. He is accredited with a mile in 28 seconds on a special 8-cylinder motorcycle on the Florida beach. Many people doubt that he ever made such fast time.

* * * * *

Pierce of Buffalo, New York, once built a belt driven single and a 4-cylinder motorcycle. The four was a "T" head design, unit power plant. The first models were one-speed and later on they had two speeds. Contrary to general belief, they were not fast and had but little power. Most any good single would beat them on the level or uphill. The oil and gasoline were carried in the frame tubes, which were quite large in diameter. Not a bad idea at that. The design still has possibilities.

* * * * *

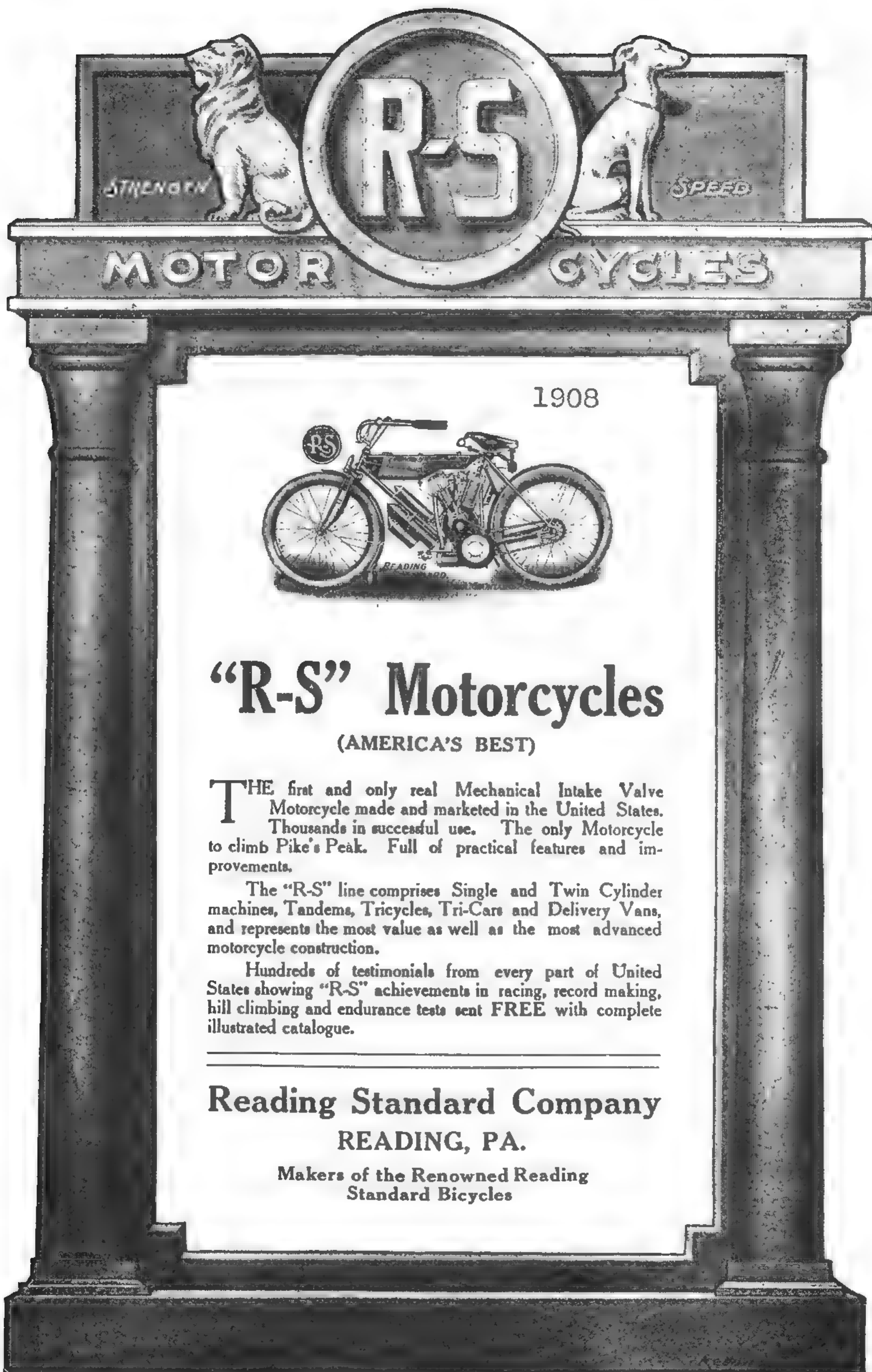
Harley-Davidson Motor Company, originally consisting of Arthur Davidson and William Harley, later joined by William and Walter Davidson, has been one of the notable and successful firms in the United States, owned entirely by a closed group, the founders. No stock was ever sold to the public. William and Walter Davidson passed on a few years ago. William Harley died in 1943. Of the original group, Arthur alone remains and, with the capable help of the young Davidsons and Bill Harley, guides the destiny of this highly successful motorcycle concern. The future of Harley-Davidson Motor Company is in good hands.

* * * * *

In the late '80s a German immigrant named Ignaz Schwinn came to America. He brazed bicycle frames for \$1.25 a day. Working night and day, he later purchased material with his savings. He sold Montgomery Ward and Butler Brothers bicycles to be made under their trade names. He later bought the Excelsior Supply Company, became manufacturer of Excelsior Motorcycles and later added the Henderson. In 1931 he closed out the motorcycle business. Retiring to his first love, the bicycle, the business prospered. Under the capable direction of his son, Frank, the Schwinn Bicycle has become world famous. Most of the popular innovations such as balloon tires, front wheel brake, spring fork and others have come from the House of Schwinn. Gid Haynes, a life-time employee of the Schwinn firm, is still active.

* * * * *

Under the direction of President E. Paul DuPont, the Indian Motorcycle Company has made great progress in recent years. Prior to the time DuPont acquired control, Indian stock and prestige was at low ebb. For a period of time Indian, always a stock company, had more presidents than a Mexican Revolution ever produced in the same space of time. General Manager Moody, a long time employee of Indian who came up the hard way, and L. E. Mason, Treasurer of the Company, have contributed much to the highly satisfactory position of the Company at the present time.



1908

“R-S” Motorcycles
(AMERICA'S BEST)

THE first and only real Mechanical Intake Valve Motorcycle made and marketed in the United States. Thousands in successful use. The only Motorcycle to climb Pike's Peak. Full of practical features and improvements.

The “R-S” line comprises Single and Twin Cylinder machines, Tandems, Tricycles, Tri-Cars and Delivery Vans, and represents the most value as well as the most advanced motorcycle construction.

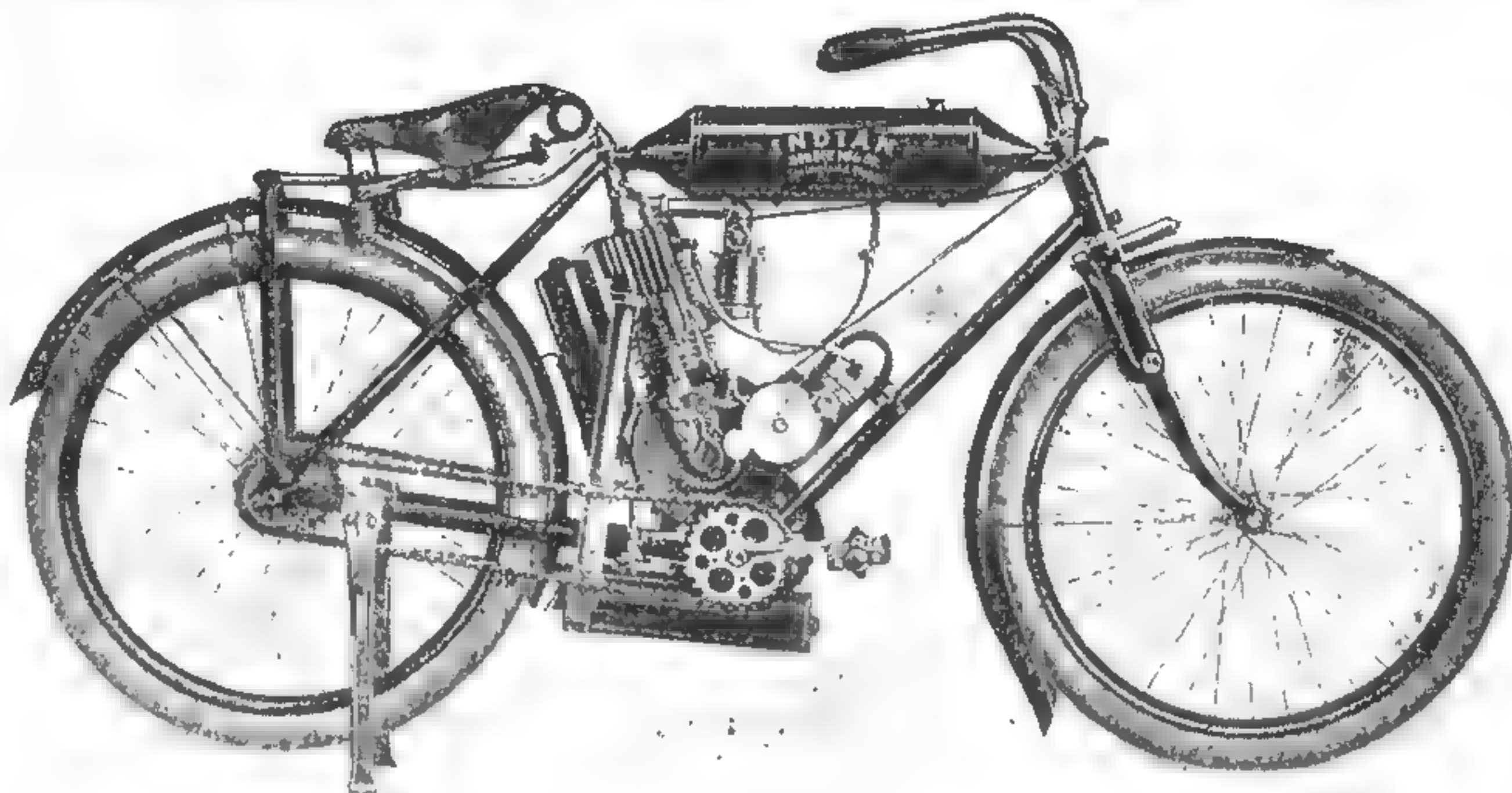
Hundreds of testimonials from every part of United States showing “R-S” achievements in racing, record making, hill climbing and endurance tests sent **FREE** with complete illustrated catalogue.

Reading Standard Company
READING, PA.
Makers of the Renowned Reading
Standard Bicycles

THE INDIAN

The Machine That Wins Everything, Everywhere

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A
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**Advertises Itself—Sells Itself. It's Easy Money
Send for Catalogue P, and Terms. Agents Protected**

HENDEE MANUFACTURING CO., SPRINGFIELD, MASS.

Reduces

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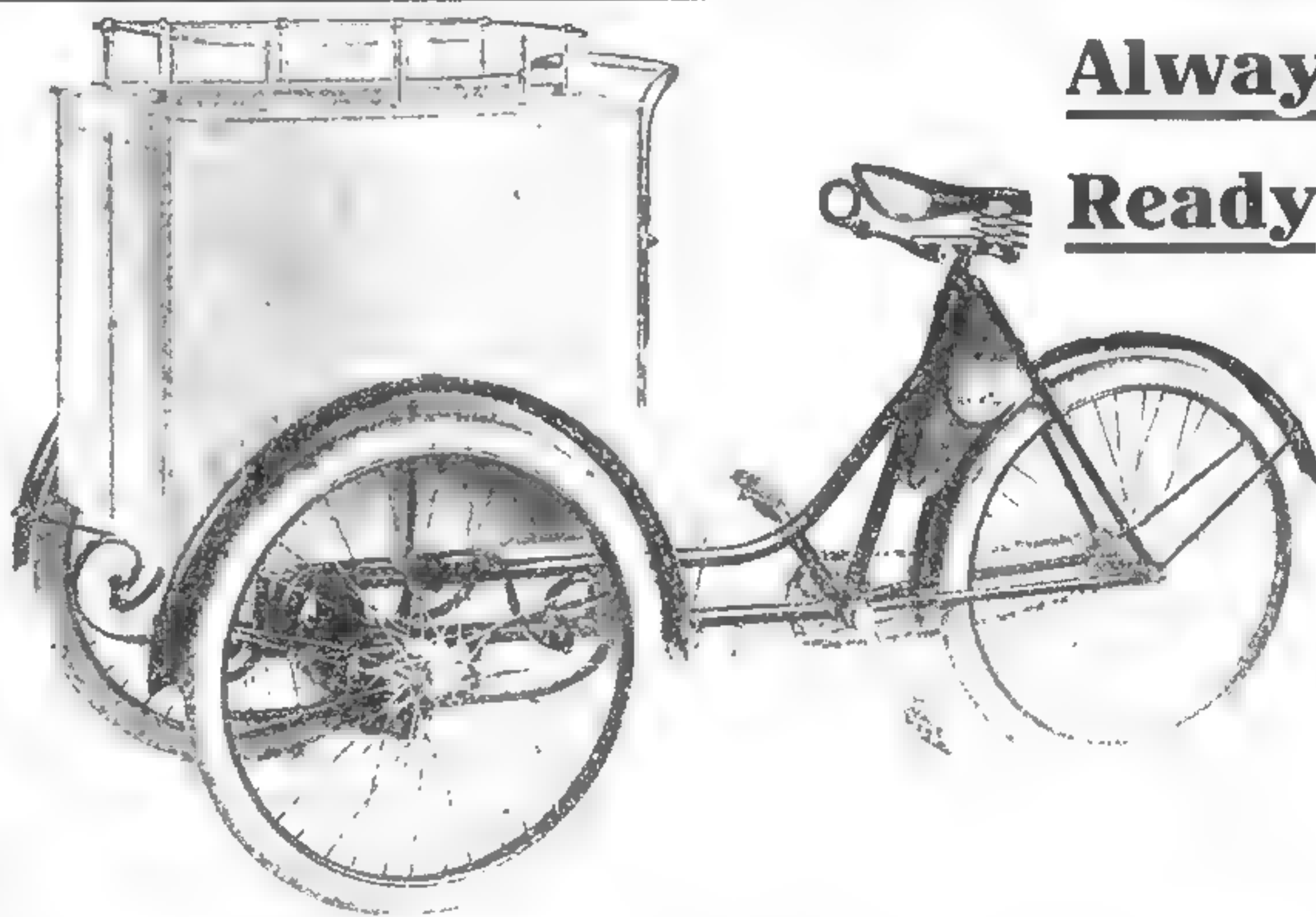
Does

Not

Eat

Always

Ready



The Consolidated Package Car, Price \$100

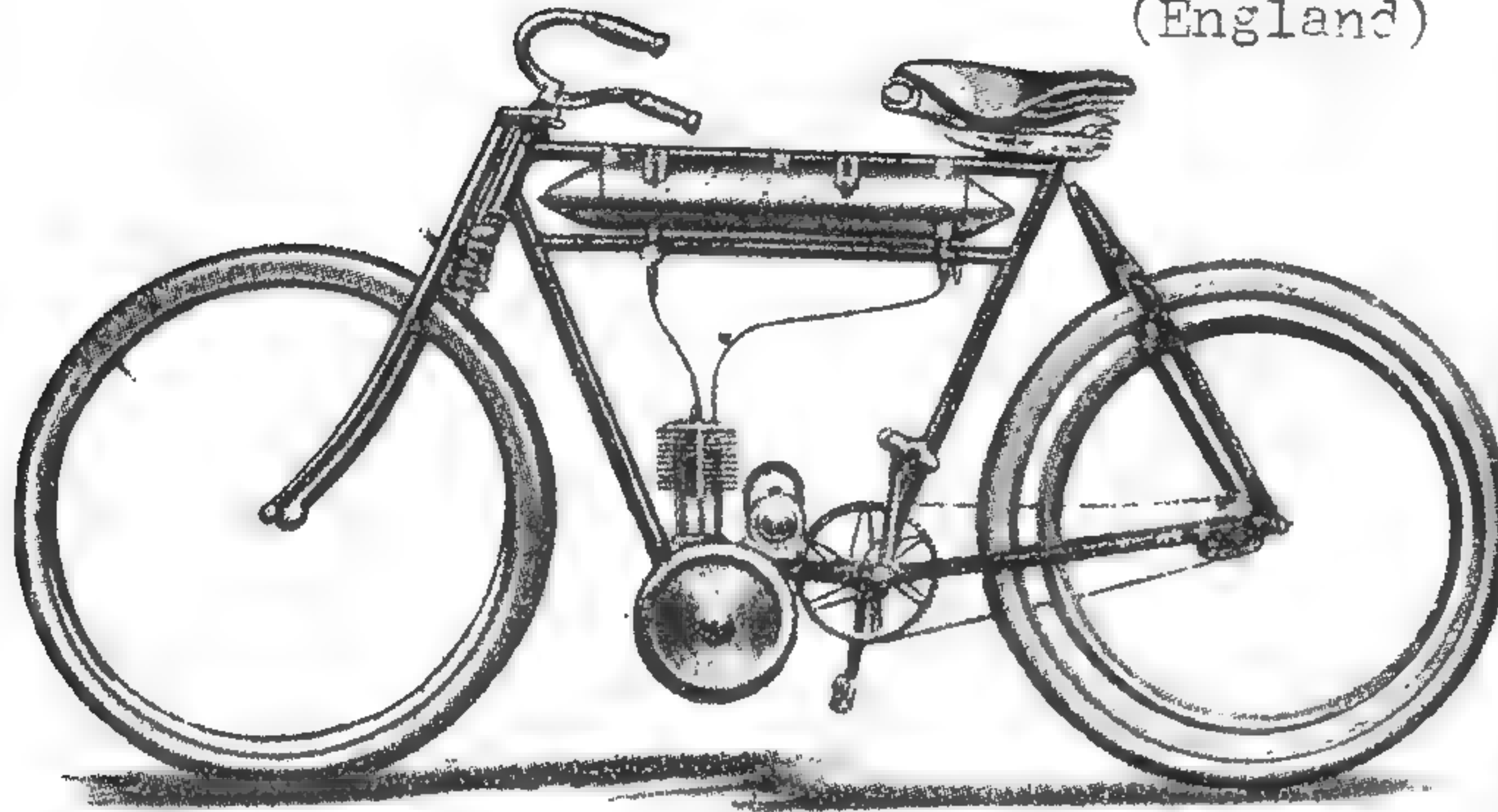
Solves the quick, economical delivery proposition for every man who has anything to deliver. You can place several in your city and make money. Write to-day.

THE CONSOLIDATED MFG. CO., 1710 Fernwood Ave., Toledo, O.

We also make Yale Bicycles, Hussey Handle Bars, Snell Bicycles,
Yale-California Motor Cycles

MOTOR CYCLING

(England)



Believe it or not, once upon a time there was a Norton two-stroke utility light-weight! Reproduced from "Cycling," the illustration shows the model as it appeared at the 1910 Show. Although displayed in a partially finished state, the weight complete with mudguards, belt and back-peddalling brake, was quoted as 55 lb. To the best of our knowledge the design never went into production.

THE COPELAND STEAM MOTORCYCLE

(Shown at right) was built in Los Angeles in 1884 by the Copeland Brothers. The machine would do about eight miles an hour for short distance.

Motorcycles—Old and New.

"BE CAREFUL! Drive slow!" The driver hears the words, spoken by a companion who has seen a man on a motorcycle and cuts down the speed at which his auto is traveling. As often as not, the "policeman" proves to be just a wayfarer who is going somewhere or other and is not intent on arresting speeders.

Motorcycles are used by traffic officers because the machines can overtake almost any automobile on the road.

The story of the motorcycle—or "motor bike," as the English are fond of calling it—goes back to 1868, when an American, W. W. Austin, made a crude but interesting machine. It was a velocipede type of bicycle propelled—or supposed to be propelled—by power from a coal-burning steam engine. The boiler was hung between the front and rear wheels and piston rods were joined to cranks on the rear wheel. Only one machine of this type was made, but Austin claimed to have used it in traveling many miles.

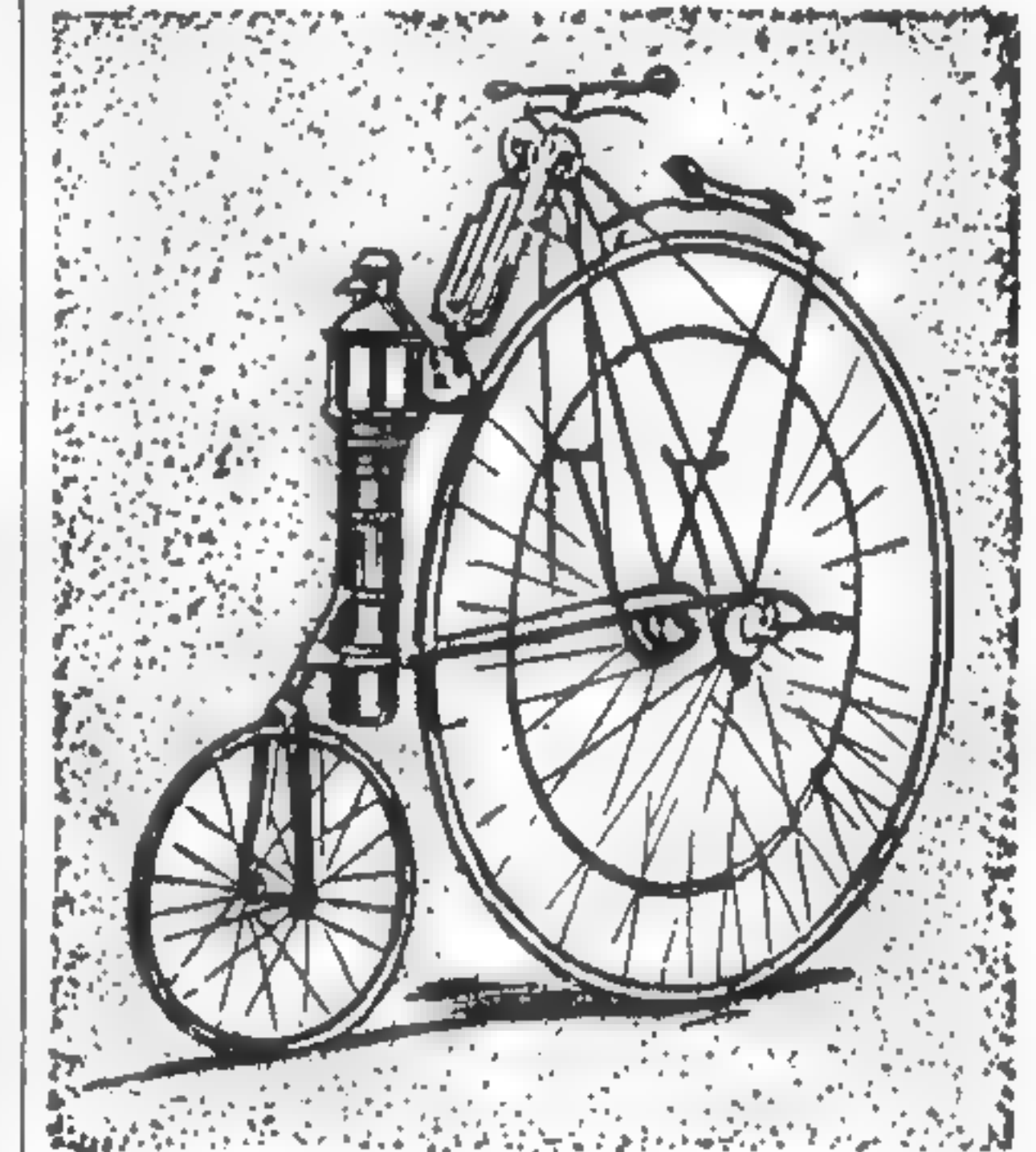
Sixteen years later two California men—the Copeland brothers—made a motorcycle which used a belt drive. The steam engine and boiler weighed only one pound.

The first gasoline-driven motorcycle appears to have been made by two German inventors in the year 1886.

Later years saw the appearance of new model after new model. Until the present century, people looked upon the motorcycle chiefly

as a racing machine, but the side-car model came out and was extremely popular for several years. It is still popular in England and is still used to some degree in this country.

In 1930 Jim Davis set a "world record" for a five-mile run by a



Motorcycle built in 1884.

motorcycle when he traveled over the course in three minutes and 41 seconds.

A German motorcyclist traveled over a mile course last year at the rate of 136 miles an hour, and an Englishman has made a slightly better record—137 miles an hour. Thus we see the old-time bicycle, with the help of power, turned into a machine which will travel more than two miles a minute.

Bevel-Gear Drive Motor Cycle.

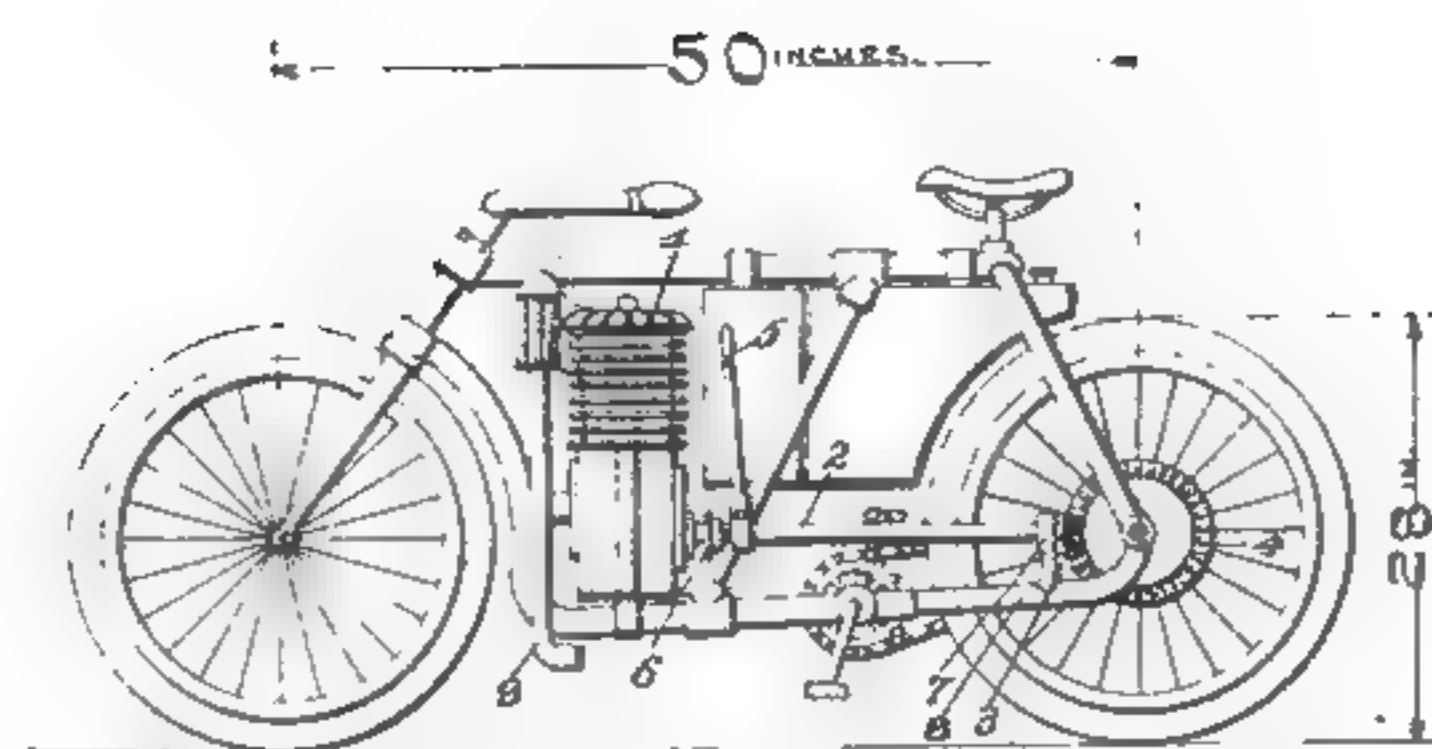
Editor THE AUTOMOBILE:

SIR:—In the accompanying drawing I have shown the latest thing in motor-cycles. I have worked out this design because of an urgent need for motor cycles driven otherwise than by a belt or chain, as the belt has the very grave defect of stretching and slipping after an hour's run, and especially so if it happens to get wet or very dry. Furthermore, a belt in order to work properly on a motor cycle must be supplied at short intervals with oil, to keep it soft and moist; otherwise it will not cling to the pulleys. Strange as it may seem, sand and grit thrown upon a leather belt will invariably cause it to slip upon the iron pulleys of a motor cycle.

The objection to the chain has been its liability to breakage caused by the sudden "jerks" of the motor, especially in starting; and a further objection has been the high speed at which the chain must travel when the motor is making, say, 2,500 revolutions per minute, which is frequently 'attained by it.

The bevel gear drive for motor cycles first entered my mind upon inspecting a

1944 NOTE: Read the last paragraph of this letter. Perhaps inventor Higdon discovered rocket or jet propulsion in 1903. Who knows?



BEVEL-GEAR DRIVE MOTOR CYCLE.

1. Motor. 2. Drive shaft. 3. Bevel pinion. 4. Bevel gear. 5. Hand lever. 6. Friction clutch. 7. Bearing bracket. 8. Rear fork. 9. Exhaust pipe.

drive of this kind upon a well known touring car made in Cleveland.

My motor cycle is not patented and will not and cannot be patented, as there is nothing patentable in placing a well-known bevel gear drive upon a motor cycle instead of on an automobile, where the same has been used for many years. In addition to this, the writer's profession of patent attorney debars him both morally and legally from obtaining patents. The design is, therefore, public property and may be adopted by anyone who desires to do so.

I predict for it a successful career.

The main dimensions are as follows: Wheel-base, 50 inches; diameter of wheels, 28 inches; weight complete, 110 pounds.

The motor 1 has its shaft extending parallel with the frame, although mounted in the usual location, and a short shaft 2 extends rearwardly from the motor and has a bevel pinion 3 mounted upon its rear end, and this pinion meshes with a large bevel gear 4 secured to the hub of the rear wheel. The motor is normally discon-

nected from the driving shaft 2, but may be readily connected by the hand lever 5 which controls a common friction clutch 6.

The rear end of the driving shaft is supported in a bearing bracket 7 extending upwardly from the horizontal rear fork 8. The forward end of the said shaft needs no bearing other than that supplied by the motor casing.

The motor is of the enclosed fly-wheel type, and may be purchased from any of the various manufacturers, and mounted upon the frame by an ordinary machinist.

The number of cylinders may be readily increased from one to four, or even eight, by placing them all tandem, and this can be done by simply elongating the frame. In this way a racing motor cycle of high power can be built, and I contemplate building one in the near future of 40 horse power.

The exhaust pipe is indicated by the numeral 9, and in this connection I desire to explain why the exhaust is turned toward the rear. I have found in both automobile and motor cycle practice that by discharging the exhaust rearwardly, I thereby make use of the principle of the reaction turbine, and cause the exhaust to assist in propelling the vehicle. It has been demonstrated in numerous instances that a motor cycle will ascend a certain hill with the exhaust turned rearwardly, but will not ascend the same hill when the exhaust is discharged in an opposite direction, or laterally.

JOHN C. HIGDON, M. E.

St. Louis, June 8.

THE AUTOMOBILE. June 20, 1903.



Bicycle Tires

It pays to make Indianapolis G & J Bicycle Tires your standard line, because they are the highest quality, have the largest demand and always give your customers absolute satisfaction.

G & J Tire Co.
Indianapolis, Ind.

*Send for Catalogue
and Prices*



MOTORCYCLES LEAD AGAIN

At Point Breeze Track, Phila.

N.S.U. 6 H. P. easily won the 3 mile open, beating a large and varied field.

N.S.U. 7 H. P. gained 2nd place in the fast 25 mile open, losing 1st by inches and preventing the usual walkover.

THEIR recent endurance victories crowned by this wonderful burst of speed, proves their worth. They are ready for any occasion.

N. S. U. MOTOR COMPANY
206 West 76th St., NEW YORK CITY
Catalogue A. explains

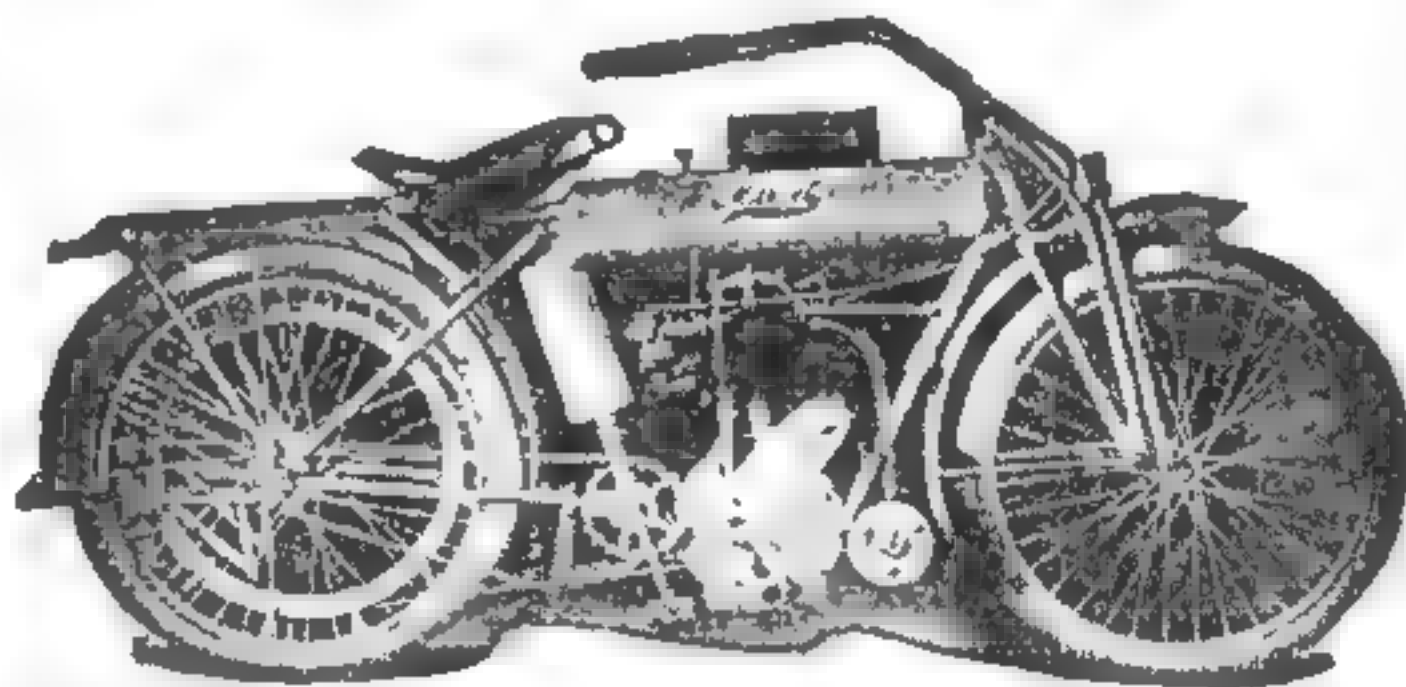


MERKEL Spring Frame MOTORCYCLES

with BALL BEARING MOTORS have during the past season by their consistent performance gained for themselves an enviable reputation and universal recognition, not in one particular locality, but wherever introduced. The list of winnings and notable performances has grown so rapidly, that space will not permit enumerating all here, but copies of same can be had and all other details regarding exclusive points of construction, operation, etc., by request to

MERKEL MOTOR CO.
1098-26th Ave., Milwaukee, Wis.

CURTISS MOTORS



are used exclusively on Marvel Motorcycles, making them the best touring machine possible to buy. Send for description of the 1912 model. Immediate shipment. *A few more desirable agencies will be placed.*

MARVEL MOTORCYCLE CO.
Hammondsport, New York

Why did the **Harley-Davidson** Motorcycle win the

Diamond Medal

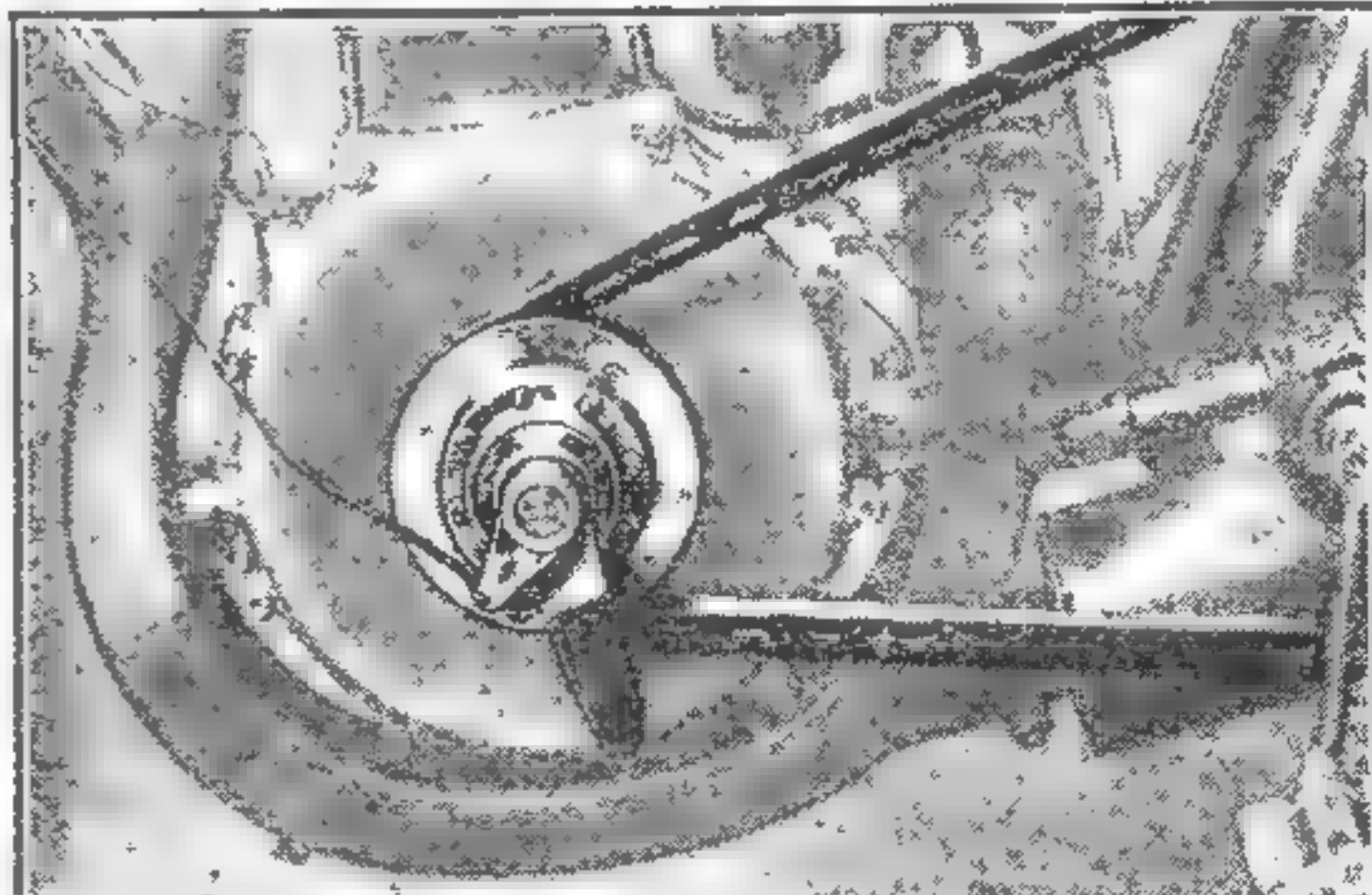
—and the—

Economy Test?

There were good reasons—ask the owner of one or write to the factory for information

HARLEY-DAVIDSON MOTOR CO.
Milwaukee - - - Wisconsin

The Eclipse Free Engine Pulley

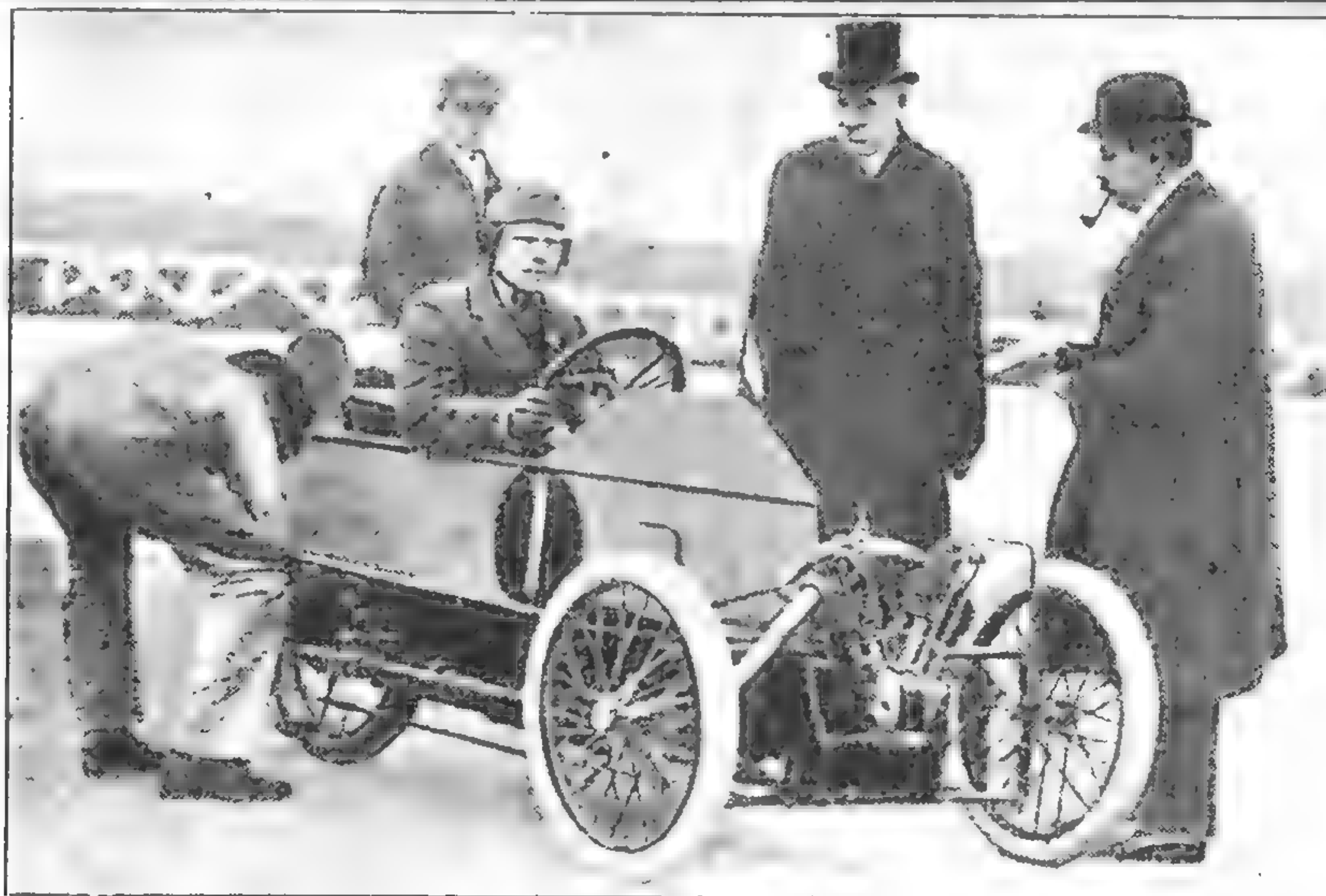


1901 FRONT WHEEL DRIVE.

123

Really old machines such as this 1901 f.w.d. Singer tricycle emphasize to the watching crowds progress in design made over the years.

MOTOR CYCLING (England)



FIRST HOLDER OF THE CYCLECAR CUP (afterwards "The Light Car" Cup) put up for the Hour Record on small cars, H. F. S. Morgan and his three-wheeler. An article in this issue describes the story of this series of records. In the background is Mr. Morgan's father, and on right timekeeper A. V. Ebbelwhite. A letter on this page points out that Mr. Morgan anticipated the Lancia Lambda suspension.

MOTOR (England)

NEW TYPE MOTORCYCLE

[2000.] Having read your article in the May issue, entitled "Motor Cycle or Motor Driven Bicycle," in which you advocate getting away from light bicycle construction, no pedals, a designed machine, etc., I would be interested to know your opinion of the design I am sending you. This machine is proportionately large throughout—66 inch

view shows a pan completely enclosing the under side of the power plant, with large opening in front to allow air circulation.

WM. G. HENDERSON.

ROCHESTER, N. Y.

Your design is clean cut and original, but your drawing does not seem to be to scale, for the engine appears to be not over 9 or 10 inches in height, which makes your draw-

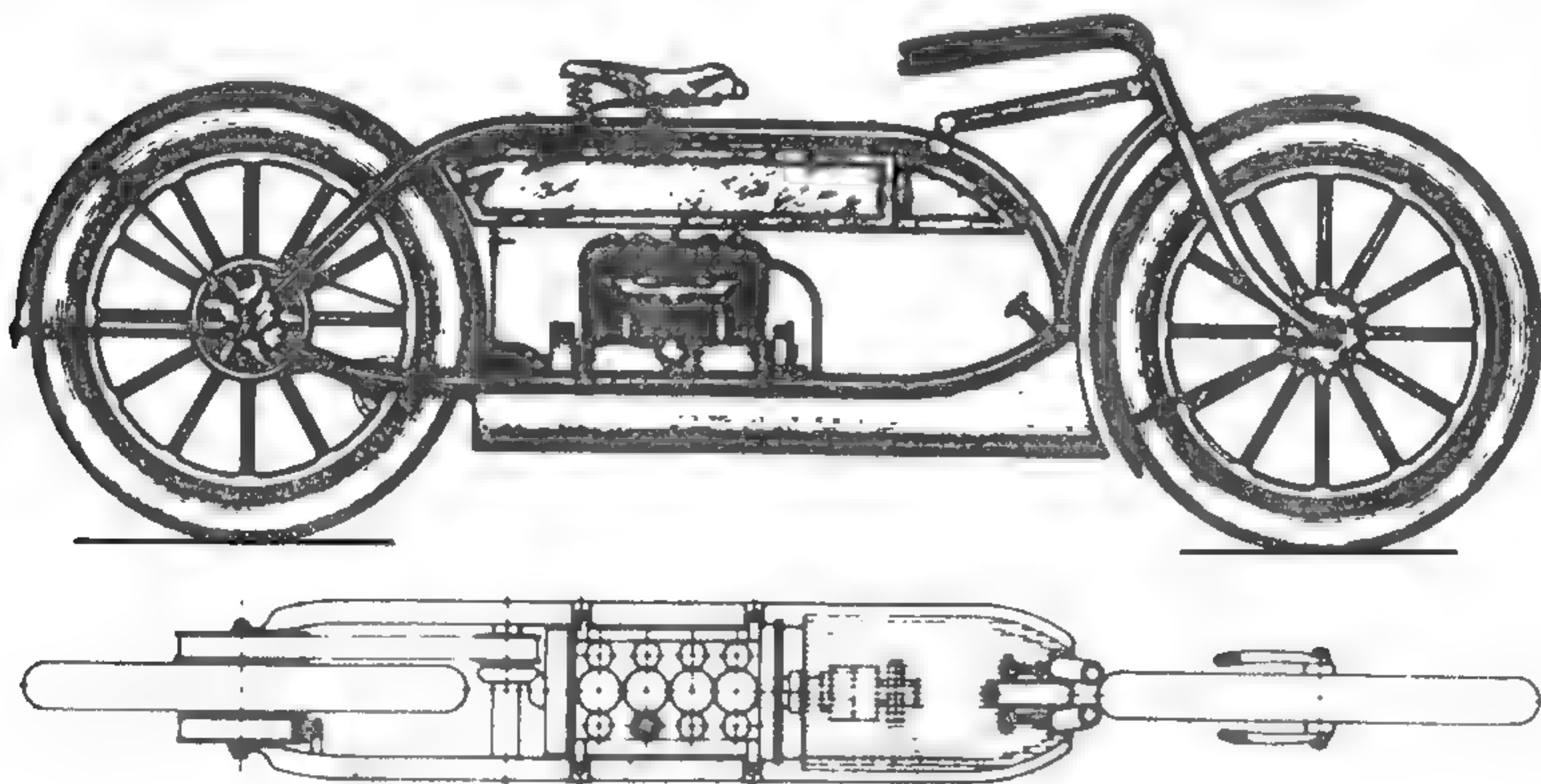


Fig. 1. Henderson Motorcycle Design.

wheel base, 28 inch artillery wheels, 3 inch tires, 4 cycles, $2\frac{1}{4} \times 3$ in. motor; belt drive, with idler sheave operated by foot lever for slipping purposes; brake operated by foot lever; no pedals; foot board; oil, gasoline and tool kit in one divided tank; spring frame as shown in accompanying sketch; saddle located very low and nearly between wheel centers, thereby reducing effect of road shocks; speed from 4 to 80 miles per hour. The rear axle construction consists of belt sheave and brake drum integral with hub flanges mounted on large ball bearings. The plan view with top bar and tank removed shows the general hook up and location of footboard, magneto, motor, jackshaft, belt drive and brake. The side

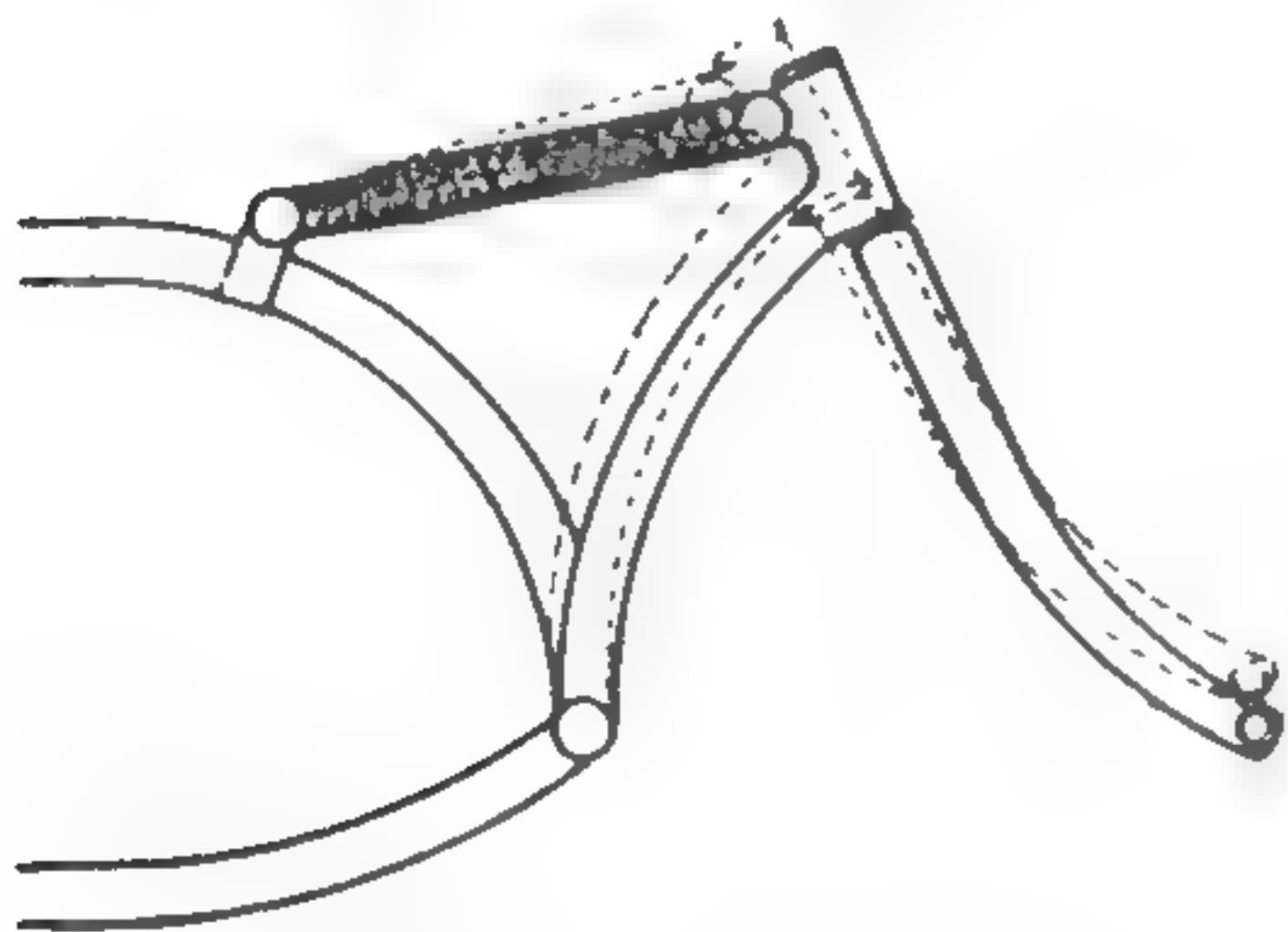


Fig. 2 Henderson Front Wheel Spring Suspension

ing show apparently room for a low seat and tank over the engine, yet with large road clearance, while in all probability your actual construction will require much greater height for the engine. The wheel base is rather longer than necessary; 28 inch wheels and 3 inch tires are all right for American roads, provided the position of the rider is not too high. The spring arrangement of your front wheel ought to take the shocks well, but the construction is such that there will be considerable up and down motion to the handle bar and grips. Some brace between the upper tube and the lower tubes might be advisable and a step of some kind near the rear. Personally I would not use a belt drive with a four cylinder engine, a shaft running in oil or an enclosed silent chain with free engine being preferable. The under pan is good, also the platform for the feet and pedal control. Your drawing shows too little clearance between the tires and the mud guard, even in view of the fact that there is no relative motion between the two. Personally I should prefer springs on the rear wheel also. Perfect your engine design, then you will know exactly how much space will be required and can more permanently arrange the other details. Your motor is larger than there is any necessity for, and will undoubtedly carry the rider anywhere without a direct drive, but this is a wasteful method, as a smaller engine and two speeds will accomplish the same results.—Ed.

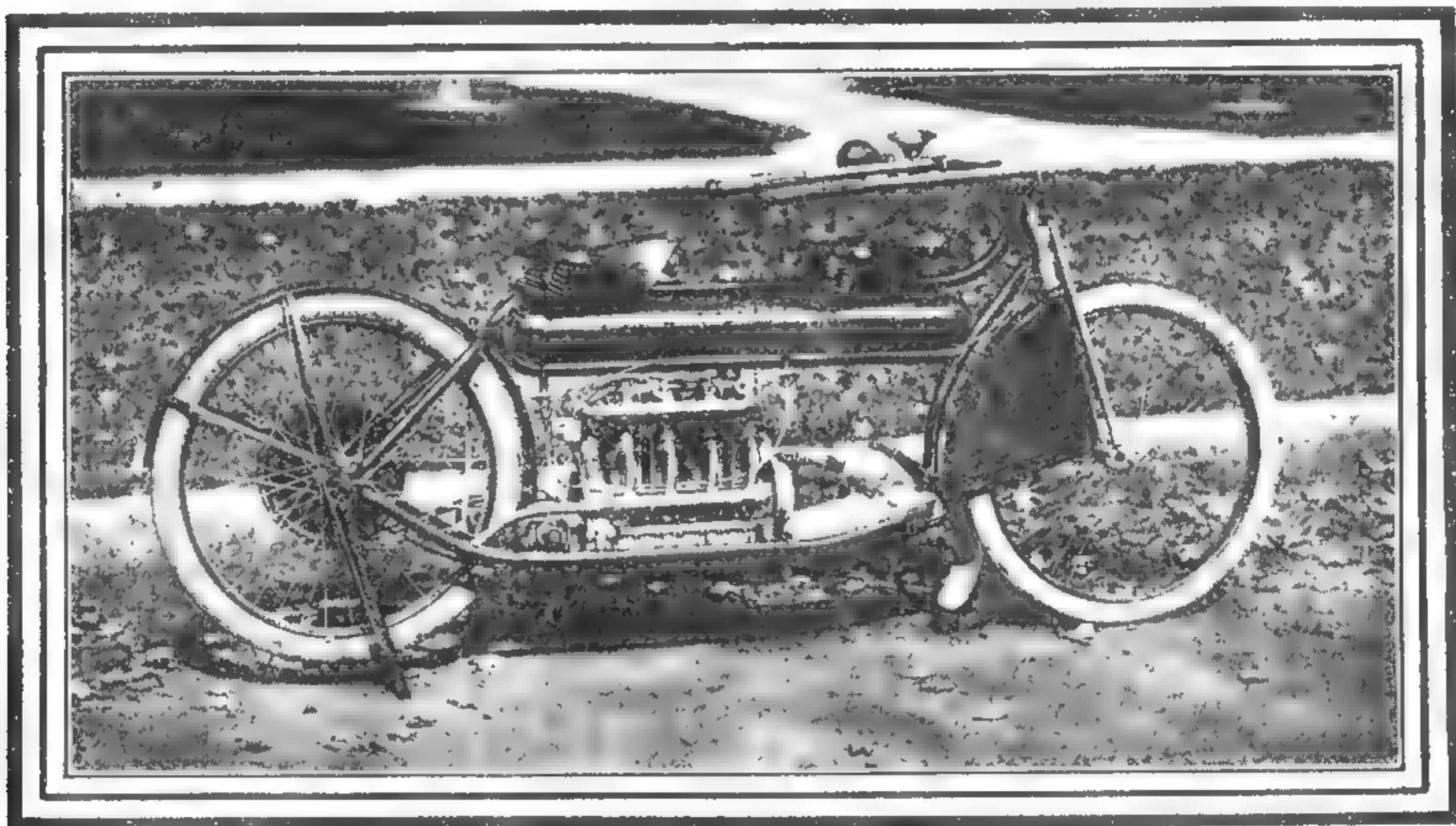
This historical letter was written by Will Henderson to Editor of Cycle and Automobile Trade Journal in 1910. Note unusual fork springing. This model was never manufactured for sale.

New Four-Cylinder Motorcycle

A new comer in the field of motorcycles has recently made its appearance in Detroit, Mich., and has attracted considerable attention. It is a four-cylinder machine and is manufactured by the Henderson Motorcycle Company, of 268 Jefferson Ave. The Company has been incorporated under Michigan laws with a capital of \$175,000, by T. W. Henderson, W. G. Henderson, George Monaghan, William E. Metzger, Charles Larned, C. W. Dean and F. M. Aiken. The machine was designed by W. G. Henderson, who has been engaged in automobile designing for a number of years.

strength, gives ample gas capacity for all cylinders to draw upon regardless of motor speed.

Lubrication is by splash system in addition to a sight feed device mounted below the oil compartment of the tank and leading to the crank case. The jack shaft is oiled in a similar manner. Bosch magneto ignition is used, the advance or retard being by spiral coupling, to obtain a wide range of spark position. The jack shaft casing, containing the bevel gearing, is divided horizontally, the shaft and clutch being borne in the lower half, which is a unit with a crank



The Henderson Four-cylinder Motorcycle.

As will be noted from the illustration, the frame lines are a radical departure from regular construction. The frame is of the curved trapozoidal cradle type. The front tube running down from the steering head is divided into two tubes, forming a cradle which carries the motor, jack-shaft casing, foot-boards and pedals. These tubes rise at the rear and attach to the rear wheel hanger, as do the rear forks. The motor is of the four-cylinder vertical type, the cylinders being of L head construction, with inlet valves over the exhaust valves, mechanically operated. Bore and stroke are 2½ and 3 in. respectively. The crank case, which is of aluminum, encloses the cam shaft and has an extension for carrying the jack shaft. The case is divided horizontally, the shafts being borne in the upper half, while the lower half serves as an oil reservoir, as in automobile practice. The lower half of the case is fitted with ten flanges which help to cool the oil and give strength to the casting. The motor and jack shaft casing form an easily removable power plant. The carburetor is located at the rear of the motor, and the manifold, on account of its

case of the motor. The Eclipse clutch is used, the same being controlled from the handlebar. The coaster and band brakes are controlled by pedals on the foot-board.

The machine is said to be capable of sixty miles per hour. The machine has a capacity of two gallons of gasoline and two quarts of oil. A bicycle type mud guard is fitted to the rear wheel and a box guard to the front. The machine is listed at \$325.

Ben Broderick is unofficially credited with having gone 100 miles on a dirt track at San Jose, Cal., in 97 minutes and 48 seconds.

Racine, Wis., motorcyclists are forming a motorcycle club, and have seventy-five members as a beginner.

Muskegon, Mich., motorcyclists have formed a society which will co-operate with the county board of supervisors in the good roads movement.

Detroit, Mich., has put a new motorcycle "on duty" in the city's police department.

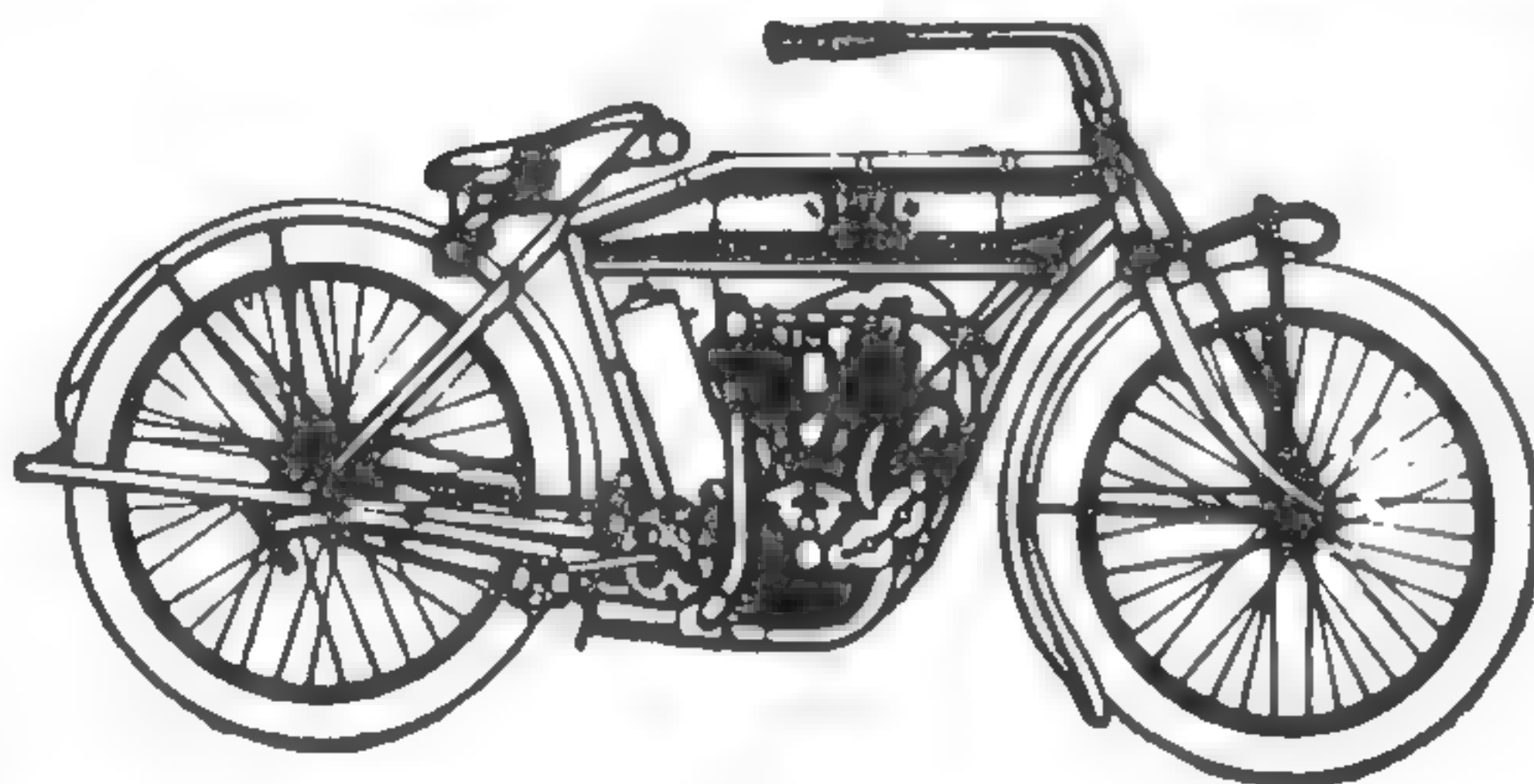
Fred Mercier is one of the latest trade riders to turn professional.

The 100-Mile Record

Made at Los Angeles, May 8th, by

THE INDIAN

Was an Unequalled Demonstration



of Quality, Power, Endurance and Reliability, for it was made by a 3-year-old machine that has done hard service, winter and summer.

All Indians are Built This Way

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MOTORCYCLES include STEAMER, Indian self-starter, Wagner, dual valve Harley, Cyclone and others.

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1. Mme. Clouet with 1 3-4 Georgia Knap Bicycle. 2. Maurice Fournier with 4-cylinder Clement.

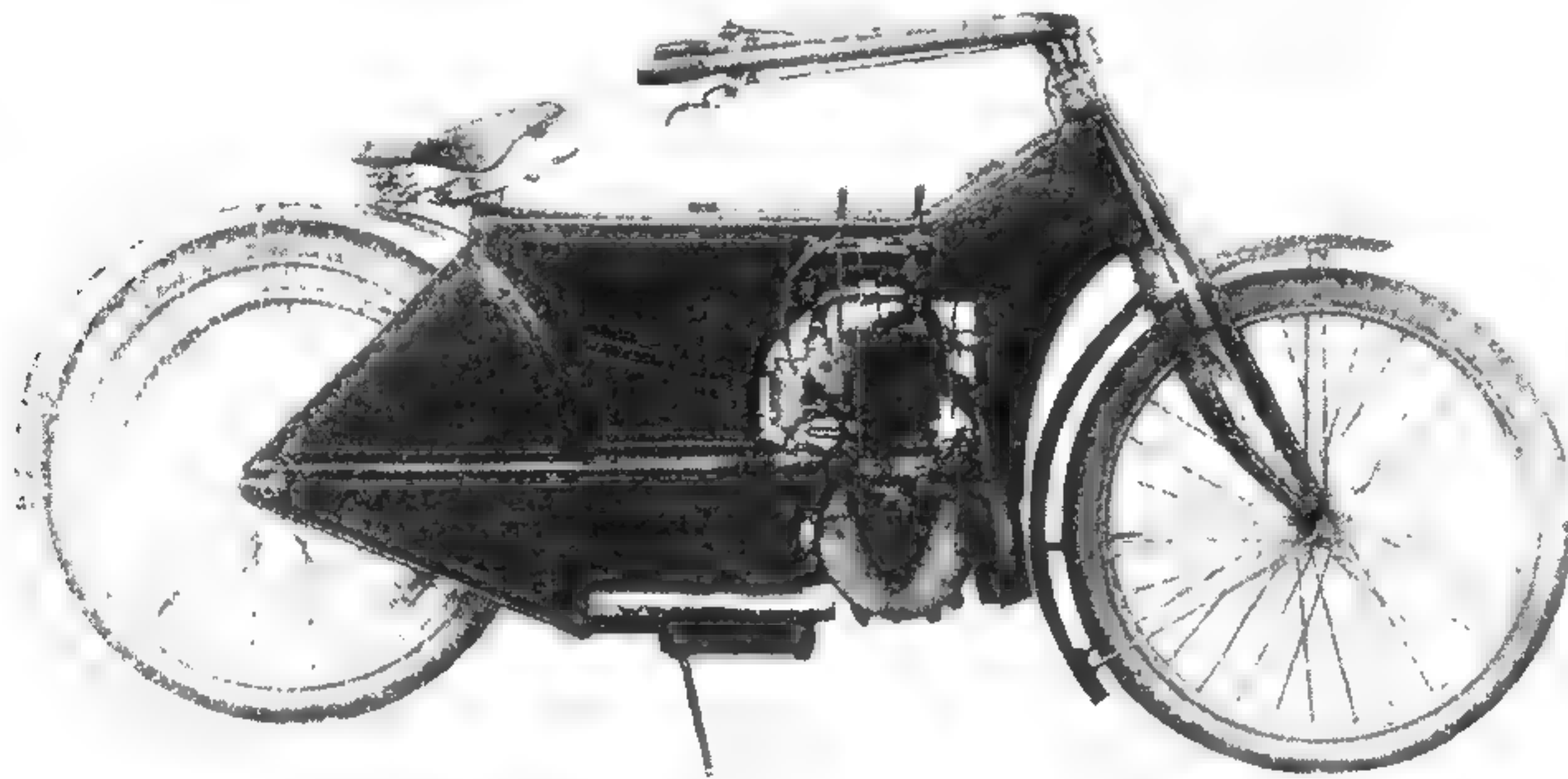


A MOTOR TRICYCLE SEEN IN AN AUTOMOBILE PARADE AT LONGCHAMPS, NEAR PARIS.

From a photograph by Barenne, Paris.

THE "MIDGET BI-CAR"

The Walton Motor Company, Inc., of Lynbrook, Long Island, N. Y., have acquired the sole American rights to manufacture the well-known English Midget Bi-Car, patented and heretofore manufactured by the inventor, John T. Brown, of England, and they have just finished equipping their plant to manufacture this machine in America.



The "Midget Bi-Car," single cylinder, $3\frac{1}{2}$ H. P.; weight, 135 pounds.

Special attention has been given to this machine in regard to the frame construction. The frame consists of a special channel steel girder (patented), which is claimed to be stronger than the regular tube style, and also prevents fatigue of the metal at the joints. The rider of the machine is amply protected from mud in stormy weather by the metal shields en-

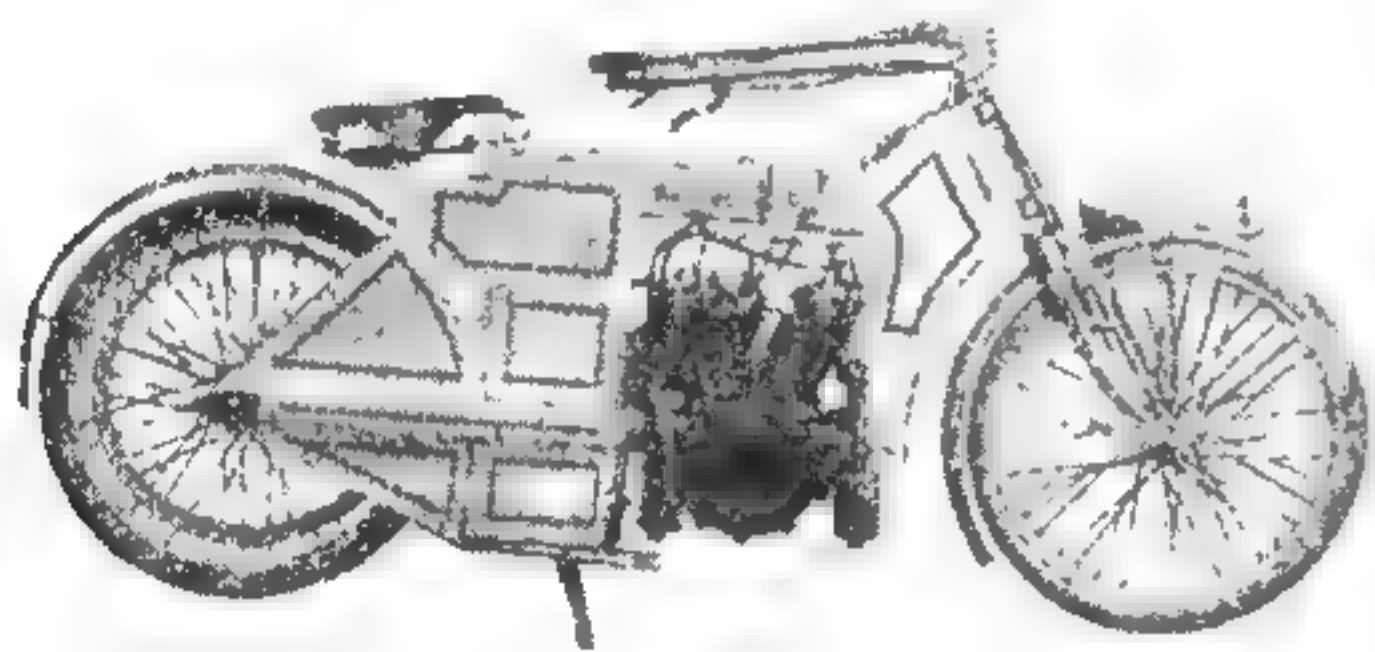
NEW TWIN "HILAMAN" MOTORCYCLE

The A. L. Hilaman Co., of Moorestown, N. J., manufacturer of the well known Hilaman single cylinder motorcycle, has recently brought out a new model 7 H. P. twin cylinder machine, as illustrated herewith.

The cylinders are $3\frac{1}{4}$ inch bore by $3\frac{1}{2}$ inch stroke, and are set at an angle of 45 deg. The weight of the machine, equip-

ped with full tanks and tools ready for 150 miles running, is 185 lbs. The wheel base is 56 inches, and the frame is 21 inches high. The tires are 28 x $2\frac{1}{2}$ inches. The gear ratio is 3 to 1. A $1\frac{1}{8}$ inch, 30 degree V-belt, is fitted.

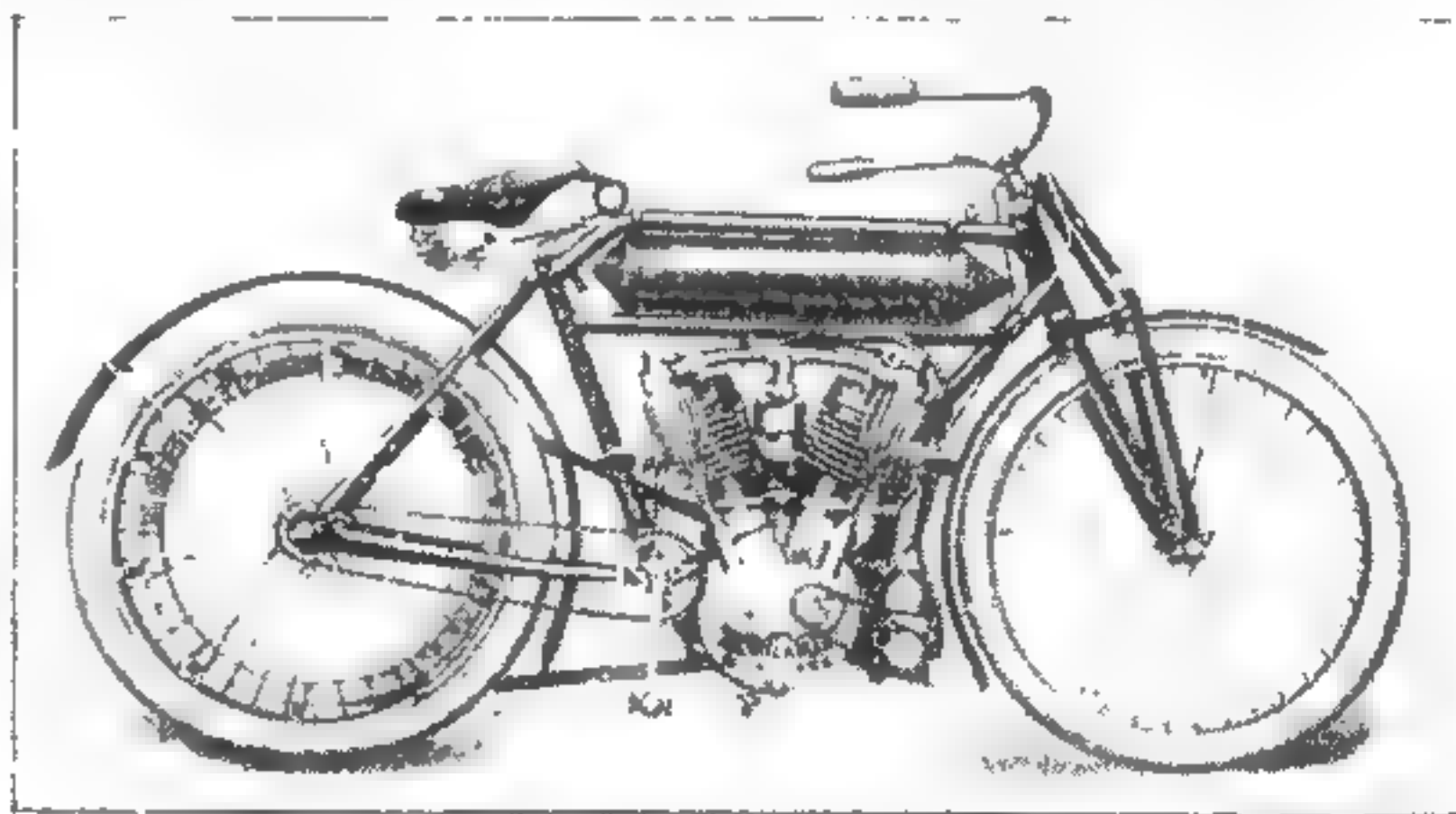
This concern is also making an 8 H. P. Special, built to order only, which is of course more suitable for racing purposes than for general use. The wheel base is 48 inches. The tires are 26 x $2\frac{1}{4}$ inches.



The "Midget Bi-Car," double cylinder; 5 H. P.; weight, 170 pounds.

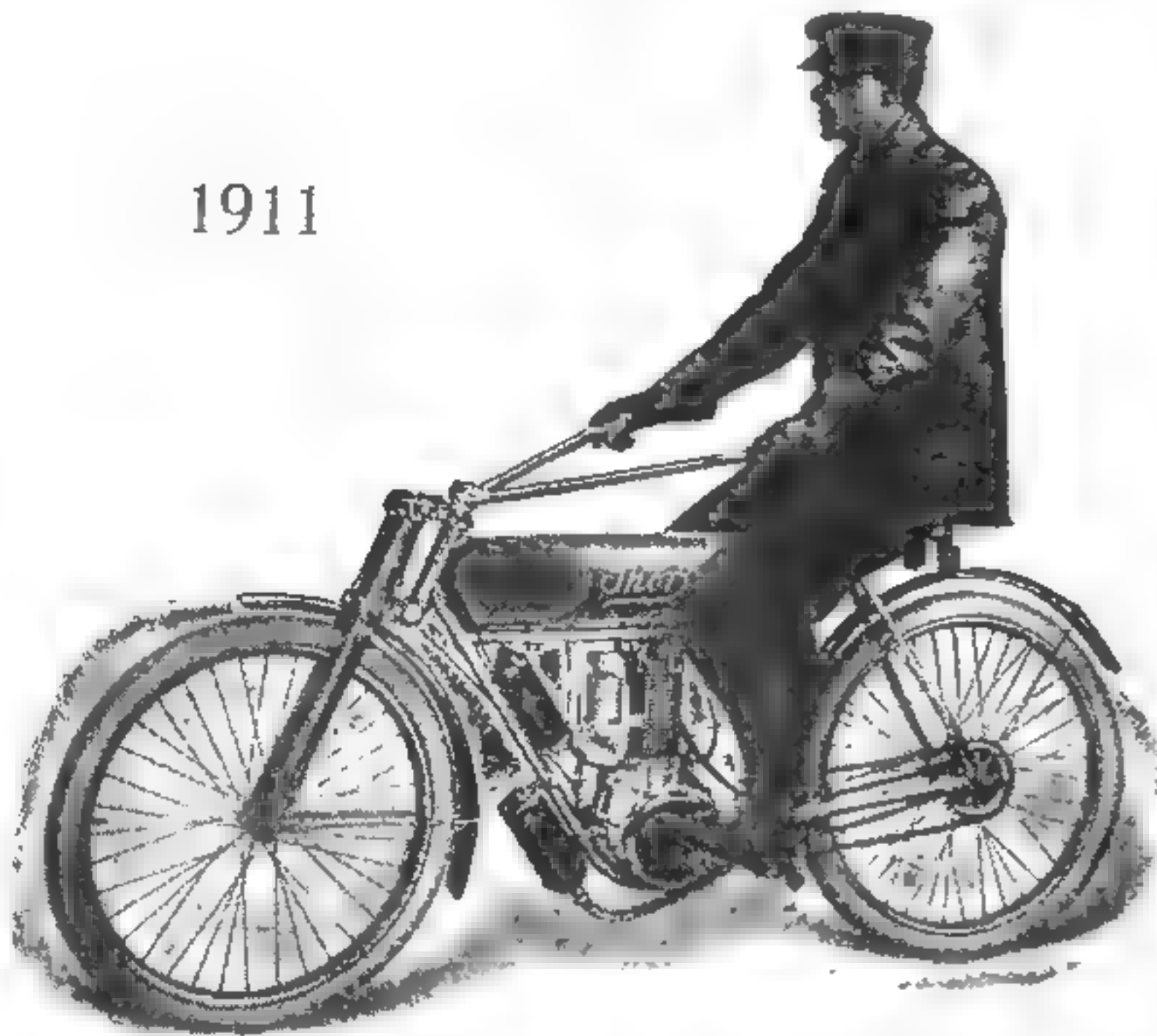
closing the back wheel and the ample "car type" back mudguard. The low build of the Bi-Car, the top of saddle being only 30 inches from the ground and substitution of footboards for pedals ensure the most natural and comfortable position possible and enables the rider to mount with the greatest ease, and almost eliminates the risk of sideslip. Ignition is by battery and coil. Drive is by $\frac{7}{8}$ -inch V-belt. The gasoline capacity of the single cylinder machine is $2\frac{1}{2}$ gallons, and oil 3 pints.

The machine is made in three models: $3\frac{1}{2}$ H. P. single cylinder, weight 135 lbs.; 5 H. P. twin cylinder, weight 170 pounds, and $3\frac{1}{2}$ H. P. fitted with two speed free engine self-starting device, weight 180 lbs.



The "Hilaman" 7 H. P. Twin Cylinder Motorcycle. Extra long and wide mud guards are fitted. The motor has 1-16 inch larger cylinders and $\frac{1}{4}$ inch larger valves, and 5 lbs. higher compression. The frame fittings as well as every part of the motor are finished down close and every ounce of metal is taken away that is possible without endangering strength. The speed of the 7 H. P. is 60 miles per hour, and that of the 8 H. P. 70 miles. The price of the 7 H. P. with battery and coil equipment is \$285.00; with Bosch magneto, \$35.00 extra. The 8 H. P. machine lists at \$350, equipped with Bosch magneto.

1911



The
Thor
Motorcycle

You will know it when you see it.

You will appreciate it when you ride it.

There are models to suit all:

**SINGLE CYLINDER, DOUBLE
CYLINDER and MAGNETO MODELS**

Quality Predominates—Finish Excels

Dealers should remember that variety and superiority stimulate trade. If interested in Motorcycles write us today.

Aurora Automatic Machinery Co. = = Aurora, Ill.

M. M. KING OF MOTORCYCLES

¶ It has that power so much needed to negotiate rough, hilly or sandy roads in comfort. ¶ It has that speed so desirable when the other fellow thinks you should take his dust. ¶ It has that stability and endurance so necessary for those delightful touring trips. ¶ It has that perfect control that begets that complete comfort so essential to real Motorcycle pleasure.

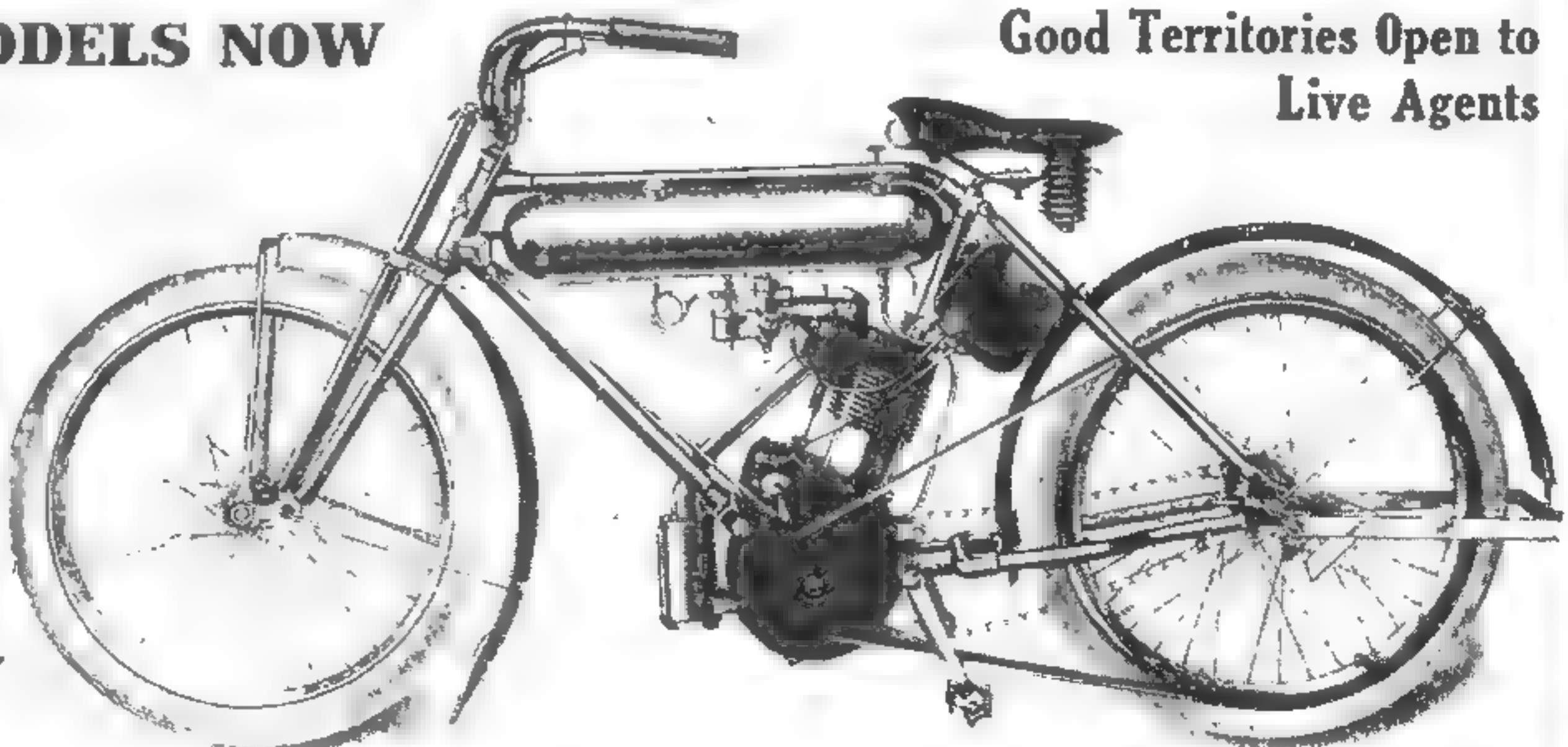
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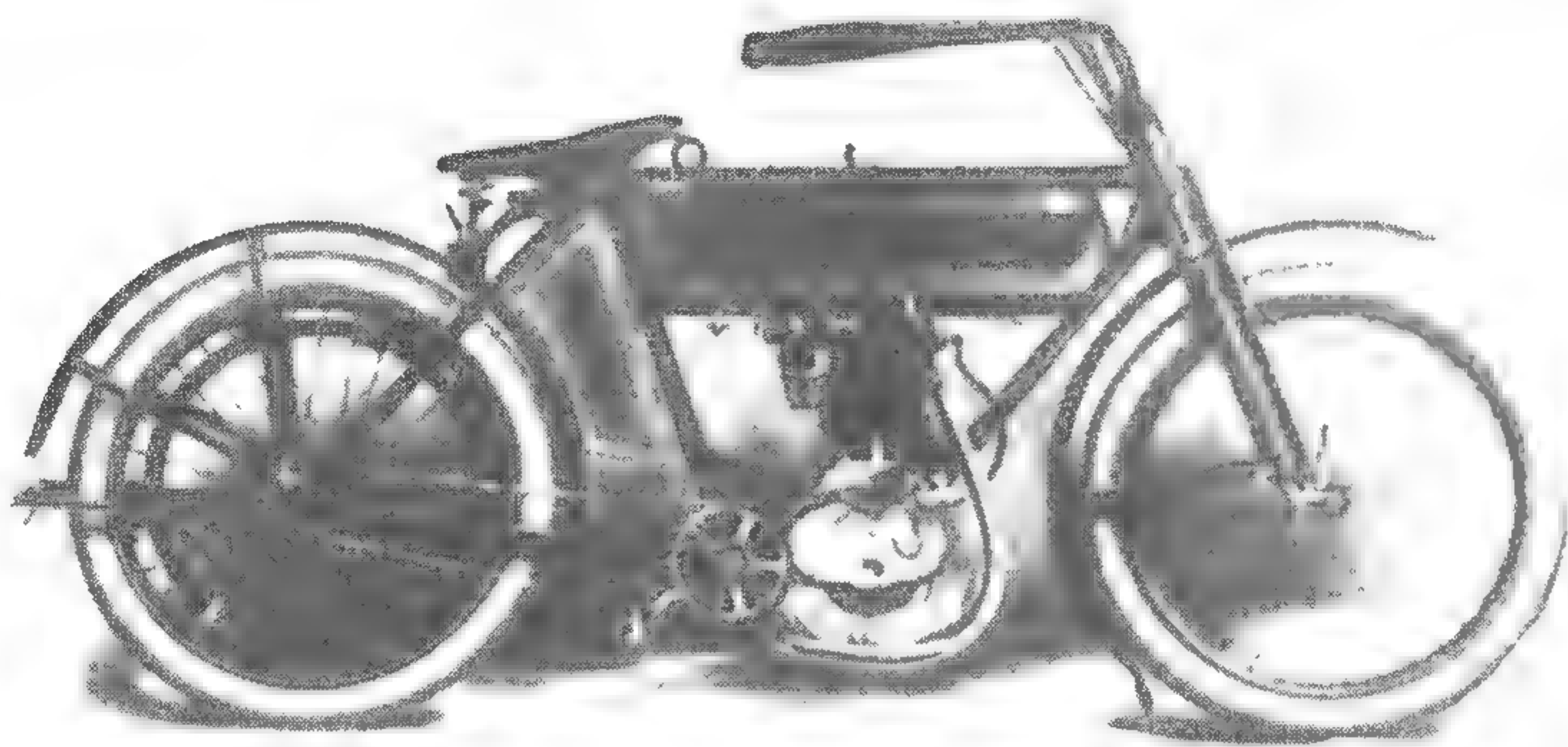
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**American
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715 Centre St.
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**Good Territories Open to
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The Quality That Counts

A motorcycle may be fast, silent and handsome, all desirable features, but if it is not always reliable,

ALWAYS ON THE JOB

it is simply a source of trouble, vexation and expense.

EXCELSIOR LAUTO-CYCLE

has all of these qualities.

It is fast enough for any practical use without other more vital elements being sacrificed to attain extreme speed

Its appearance speaks for itself, and the smooth running, vibrationless motor is the nearest approach to absolute silence ever attained

Its reliability is proven in every big road test wherein it has earned and holds its reputation as

THE ONE THAT ALWAYS MAKES GOOD

Thousands in daily use are constantly adding to its record.

EXCELSIOR SUPPLY COMPANY

(ESTABLISHED 1876)

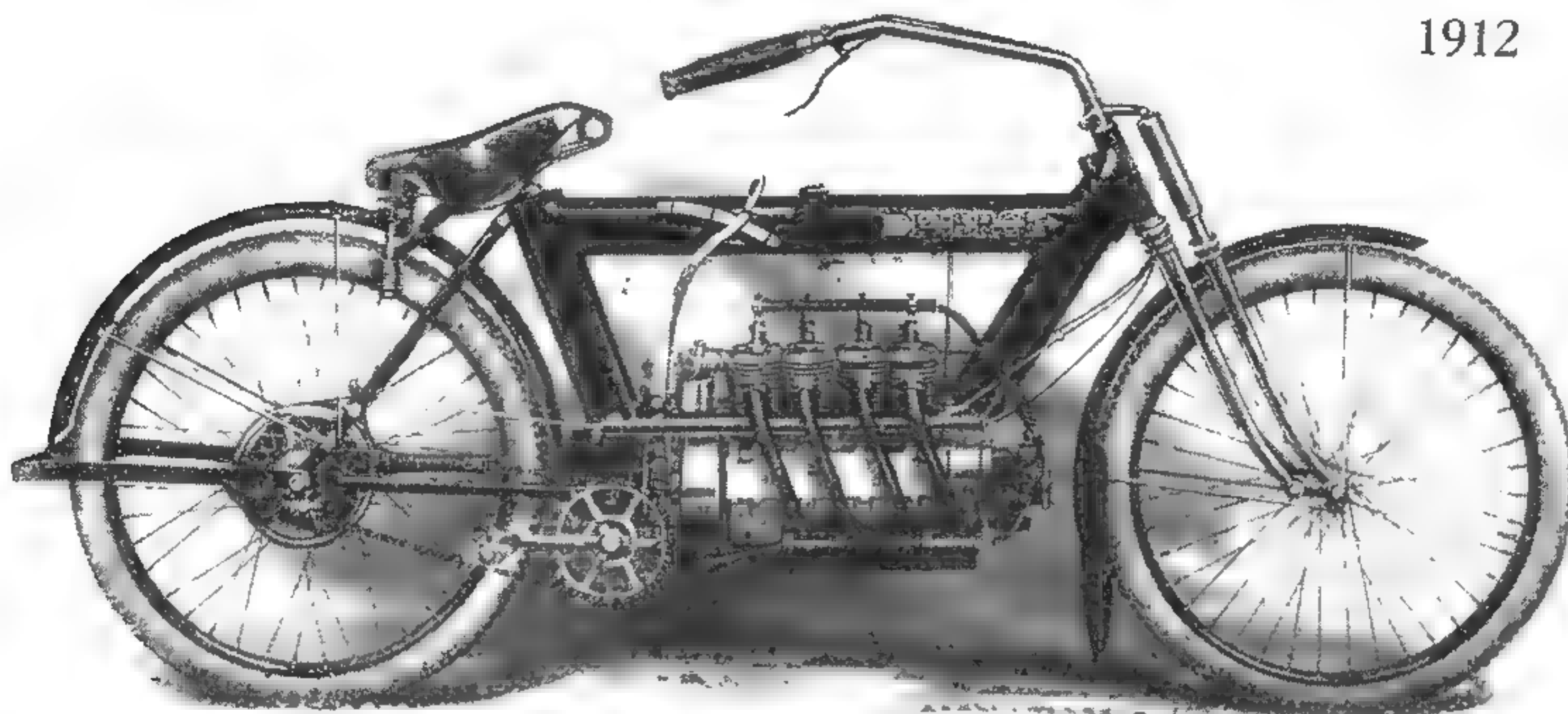
Randolph Street Bridge

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Chicago, Ill.

PIERCE MOTORCYCLES

1912



FOUR-CYLINDER MODEL—RIGHT SIDE. LIST, \$400.00

The Four-Cylinder Model

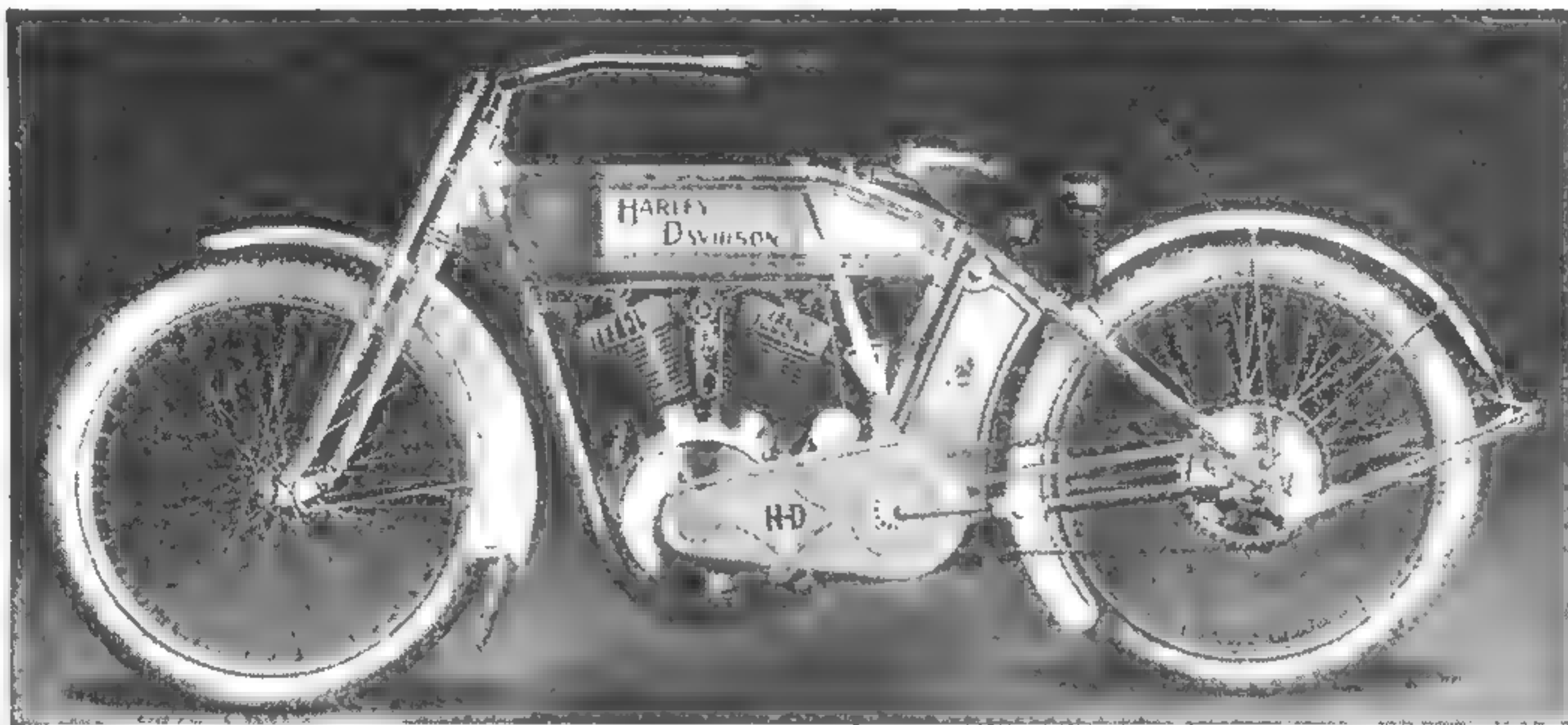
THE 1912 Four-Cylinder is notably improved over the 1911 Model. Many old riders, upon being told this, have said, "I don't see how you can improve it—the machine is pretty near perfect as it is." It is true that the 1911 Four-Cylinder has won by far, both in this country and abroad, the leading position among motorcycles, but the present model is improved, and piece by piece it represents the Pierce ideal of motorcycle design and construction.

The Pierce Four-Cylinder is built to perform any service that can possibly be required of a motorcycle. Its adaptability for meeting all requirements has made it the chosen mount of seasoned motorcyclists.

We could fill this catalogue with enumerations of the advantages of four-cylinder engines and shaft-drive transmissions. Space forbids, and we content ourselves with a few convincing arguments which should prove our point: That no other motorcycle is as flexible and withal simple in control—clean—dignified—accessible—as thoroughly efficient, quiet and smooth-running, as the Pierce Four-Cylinder.

Just as four, six and eight-cylinder automobiles are superior to the universally discarded single and double-cylinder motors, so the Pierce Four is superior to single and twin-cylinder motorcycles. The element of vibration, so prominent in singles and twins, and which shortens the life of the machines and prevents smooth, comfortable riding, is almost non-existent in the Pierce Four.

HARLEY-DAVIDSON



700 Used by One Corporation

AFTER the Bell Telephone Company had convinced themselves absolutely that one man with a motorcycle could do the work of from three to five men with teams, they carefully investigated the various makes of motorcycles. Several of the most desirable were selected for try-outs in their own work. When results were compiled the showing of the

HARLEY-DAVIDSON

was such that today there are more Harley-Davidsons to be found in the service of the Bell Telephone Company, than all other makes combined. Their records substantiated our claim that the Harley-Davidson was the most economical motorcycle made, which claim was based on the official World's Economy Record established by the Harley-Davidson more than four years ago—a record which still stands unequalled by any other make of motorcycle.

The Harley-Davidson is the only motorcycle that the National Federation of American Motorcyclists has ever awarded a diamond medal and a 1000 plus 5 score in any endurance contest—(the plus 5 was given because of the exceptional showing of this machine.)

It is the only motorcycle which has the Ful-Floteing Seat and Free-Wheel Control, (both patented features) two of the greatest comfort factors known in the motorcycle world.

Call up the Harley-Davidson dealer in your vicinity and ask for demonstration or send for illustrated catalogue.

HARLEY-DAVIDSON MOTOR CO.

275 B STREET

MILWAUKEE, WIS.



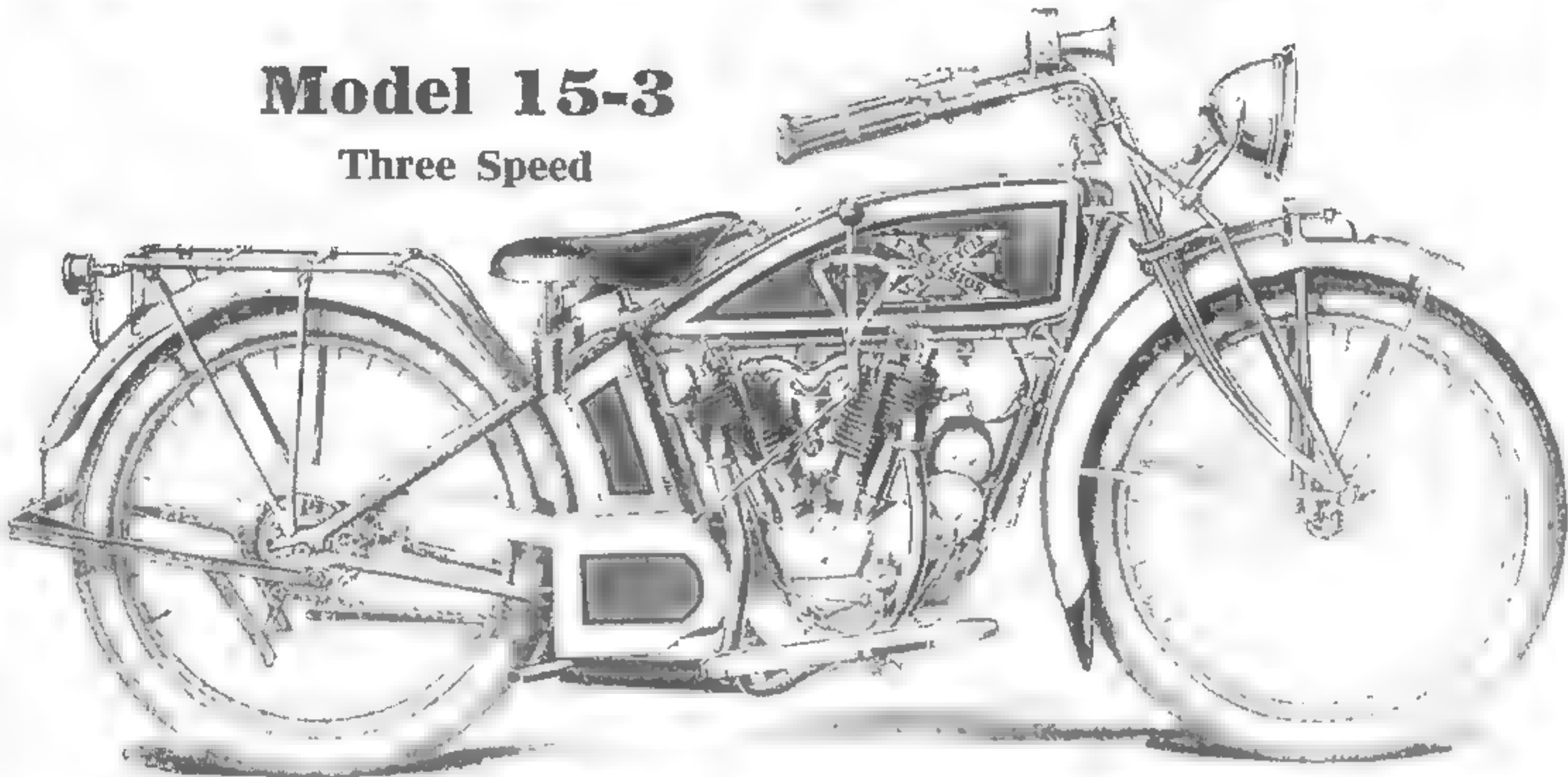
The Latest and Greatest



Excelsior Auto-Cycle

Model 15-3

Three Speed



Three Models Identical in Design Except in Transmission

PACIFIC COAST PRICES

Model 15-3; Three Speed, progressive type	- - - - -	\$290.00
Model 15-2; Two Speed, sliding clutch type	- - - - -	280.00
Model 15-1; Chain Drive, through counter shaft clutch	- - - - -	240.00

Extra equipment, including Splitdorf Magneto-Generator, Electric Head and Rear Lights, Electric Horn and Speedometer, \$40 additional

SOME NEW REFINEMENTS

Three Speed sliding gear, progressive type, with large gears and heavy duty annular ball bearings. Absolutely oil tight and automatically lubricated.
Two Speed sliding clutch type with heavy duty ball bearings, large gears and automatic lubrication. Operated by either hand or foot.
Main clutch on both above models extra large and positively lubricated through main shaft.
Motor Starter, folding foot type, segmental gear and pinion, simple, positive and powerful.
New Rear Hub, extra wide between flanges with two powerful band brakes on 6-inch drum, roller bearings.
Driving Chains both 3/8-inch wide, 5/8-inch pitch.
Frame, double triangle type with lowest possible

saddle position, long drop forged head and unit seat post cluster, frame highest quality seamless steel tubing and drop forgings throughout.
Large Foot Boards, double hinged with two brake pedals, one a combined clutch and brake control.
New Style Tank with rounded corners, heavy baffle plates, emergency oil pump and priming gun.
Double Delivery Lubricating System with gear driven oil pump.
Larger Valves and exhaust pipes with new style pressed steel muffler with tail pipe.
There are many other valuable refinements, all described in our new advance circular. Write for it today.

OTHER MODELS AND PACIFIC COAST PRICES

MODELS 7-C, 7 T. S will be continued without change but at new prices.	
MODEL 7-C, Twin, Chain Drive.....	\$240
MODEL 7-T. S., Twin, Two Speed	250
MODEL 7-S. C., Short Coupled Speed Type ..	\$265
MODEL 4-C., Single, Chain Drive	200
MODEL 4-T. S., Single, Two Speed ...	220

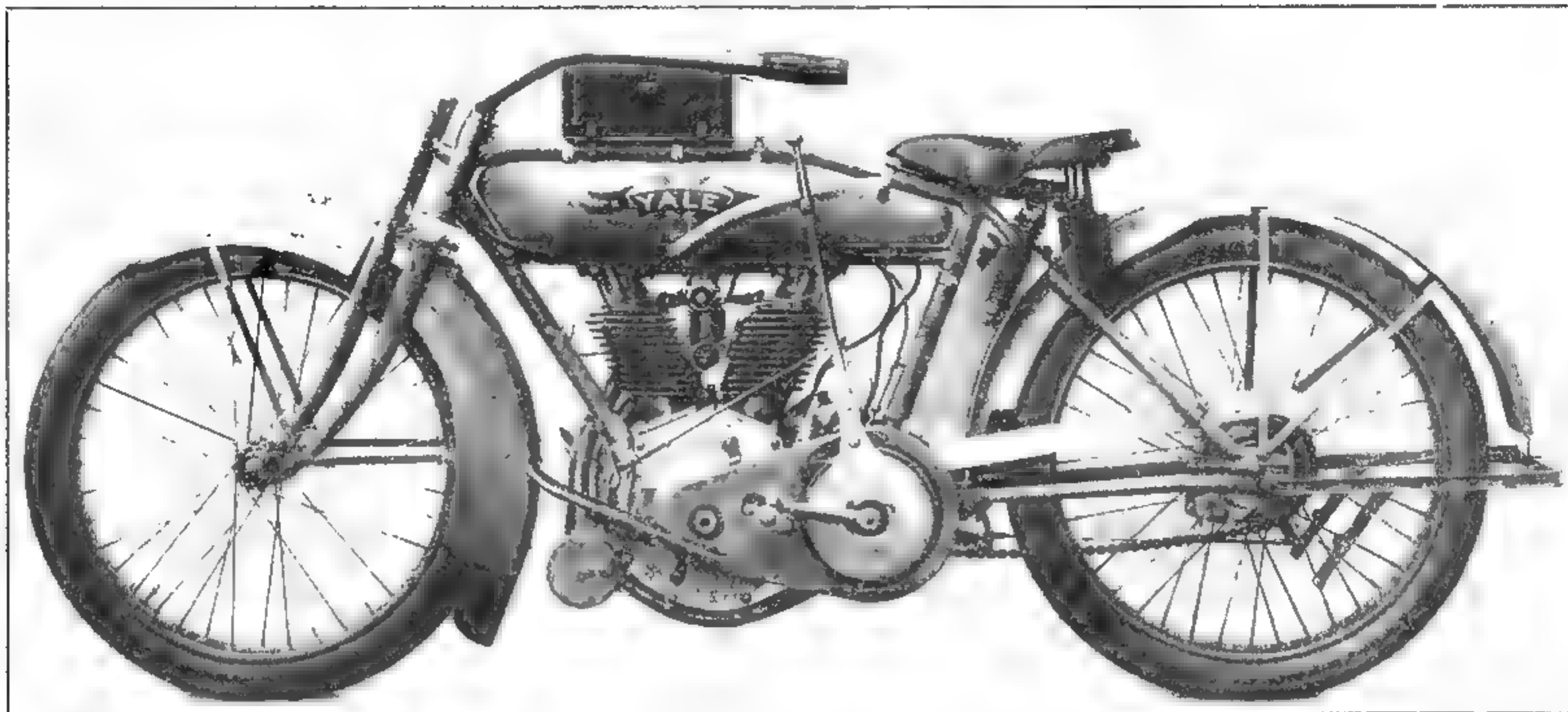
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November 5, 1914

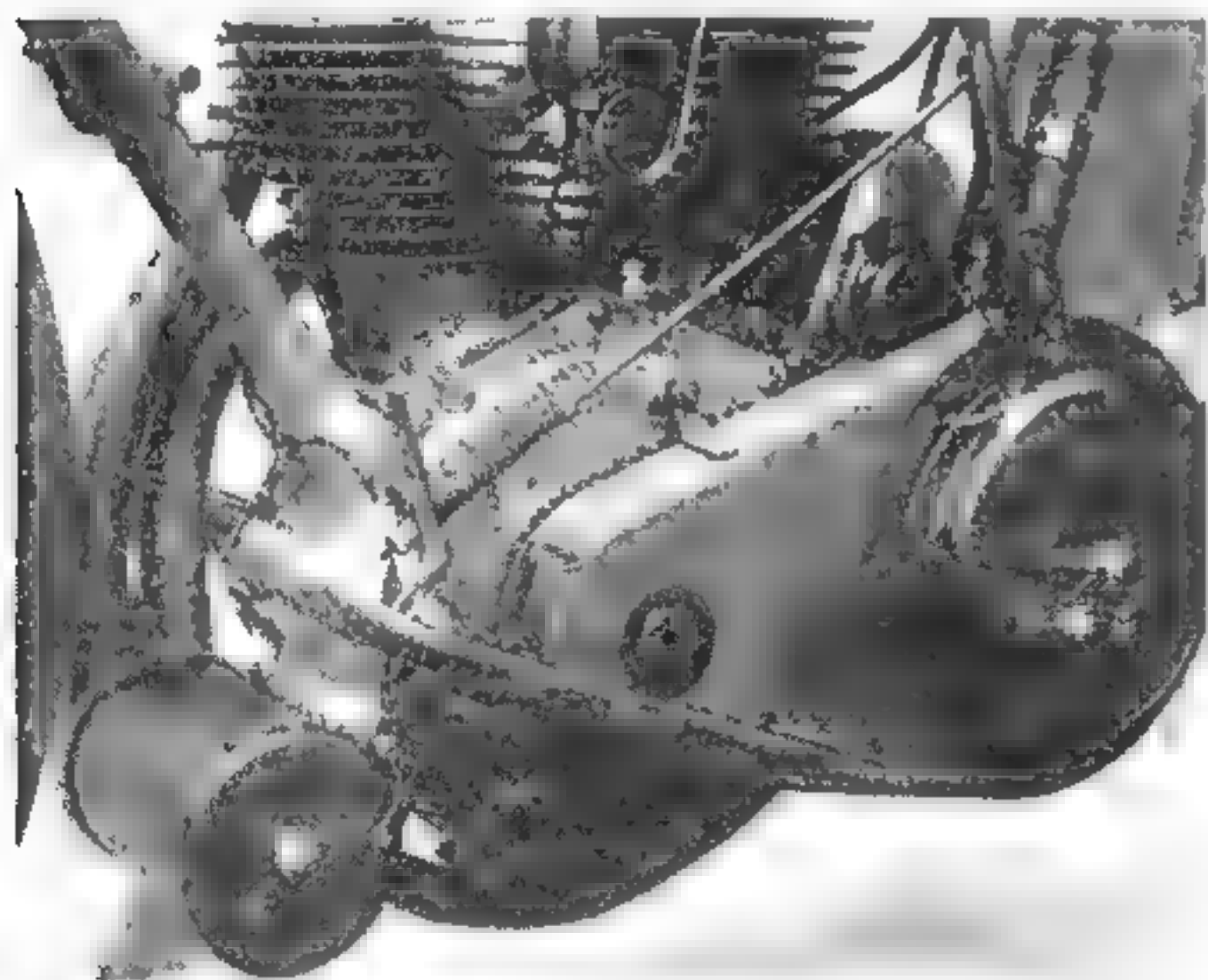
The Pacific Motorcyclist



L EFT side of new Yale twin. Note pleasing, compact appearance given by arrangement of footboards, muffler and exhaust pipes. Wide aprons on front guard for complete protection from road dirt. Guard over drive chain. Mesinger or Troxel saddle. Firestone tires. Dependable Bosch waterproof magneto. Schebler carburetor **\$260**

MORE comfort, even greater power, and exquisite refinement of detail add still more generous value to the indomitable road ability that has made the Two-Speed Yale the National Road Champion.

And new Yale prices made possible by exceptional development of manufacturing efficiency and large production, mean easy sales and big sales for Yale dealers, for the matchless value offered is plain to every thoughtful buyer.



SHOWING big, comfortable footboards, new muffler and foot control. Silence of running with great motor efficiency and entire absence of back pressure. Direct exhaust pipes without bends or curves.

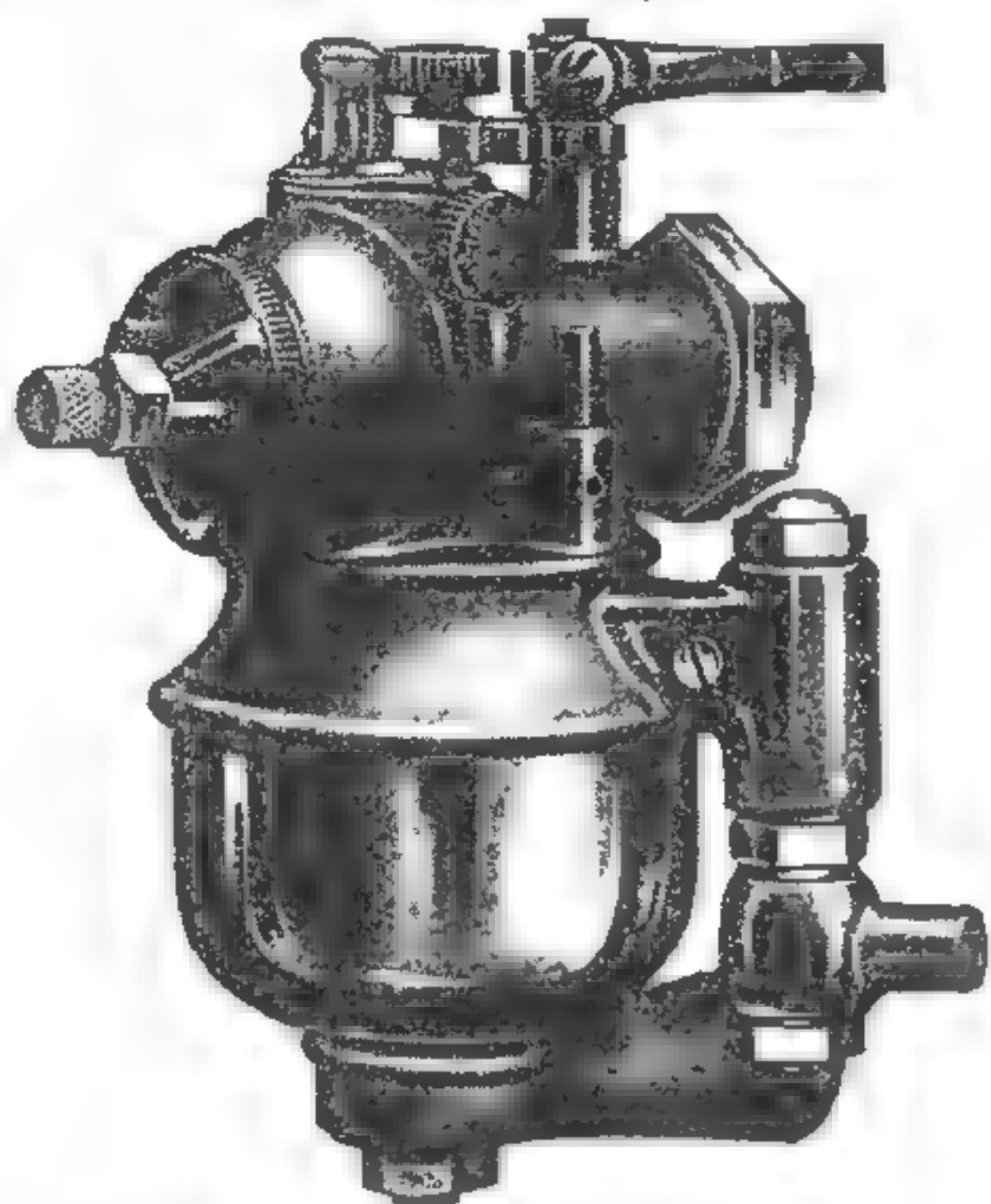
*Territory is being allotted rapidly. If you file your application **AT ONCE** you may be able to gain the Yale dealership in your locality---but don't delay.*

The Consolidated Mfg. Co. 1763 Fernwood Ave. TOLEDO, OHIO

Makers also of Yale and Snell Bicycles, Hussey Handlebars, Steel Tubing, and all kinds of Drop Forgings

Please mention this journal in writing advertisers

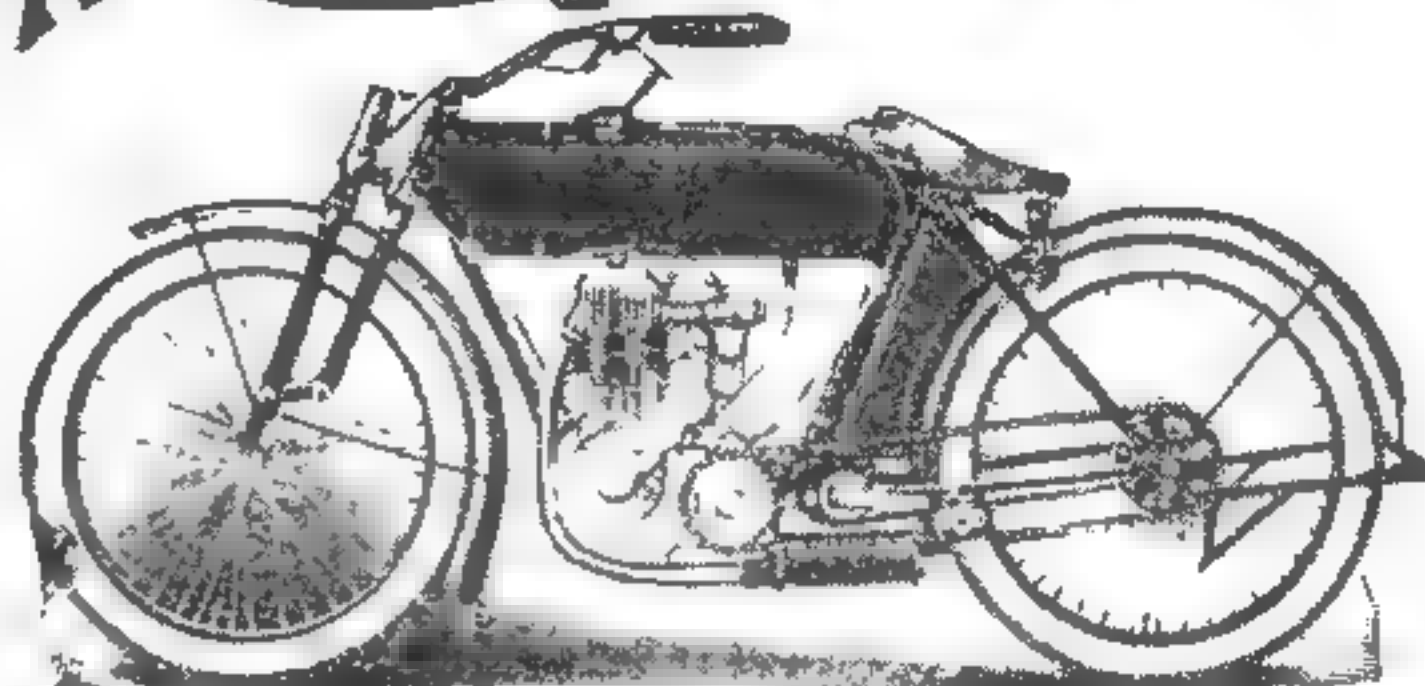
HEITGER CARBURETERS For Motorcycles



Gives minimum and maximum speeds, one setting. Gives 4 to 75 miles per hour according to size engine, from 75 to 100 miles per gallon.

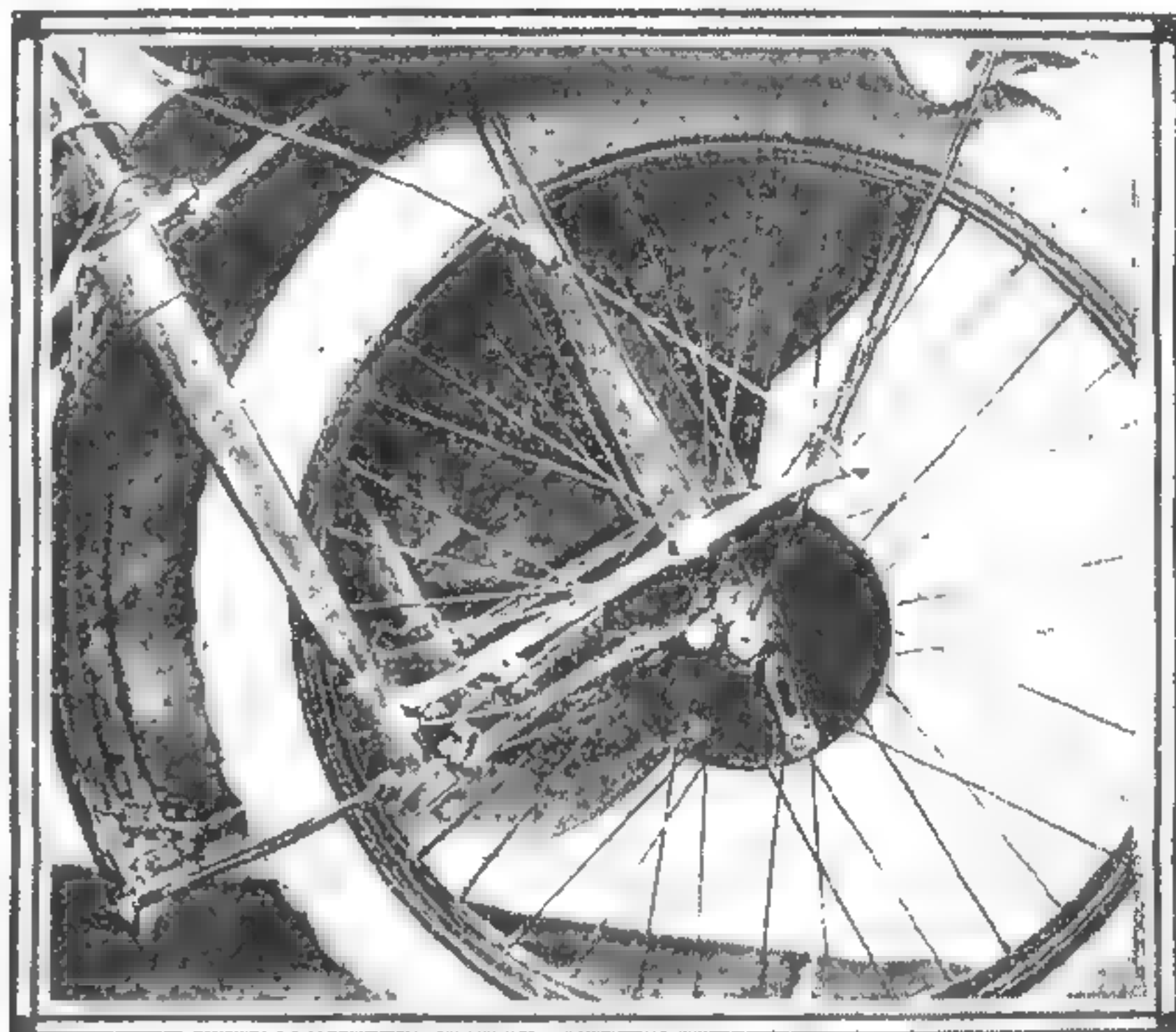
HEITGER CARBURETER COMPANY
1150 Beecher Street INDIANAPOLIS, IND.

Minneapolis BIG 5



Two-Speed Gear and Clutch enclosed and running in oil. Write for catalog.

MINNEAPOLIS MOTORCYCLE CO.
517 S. 7th Street Minneapolis, Minn.

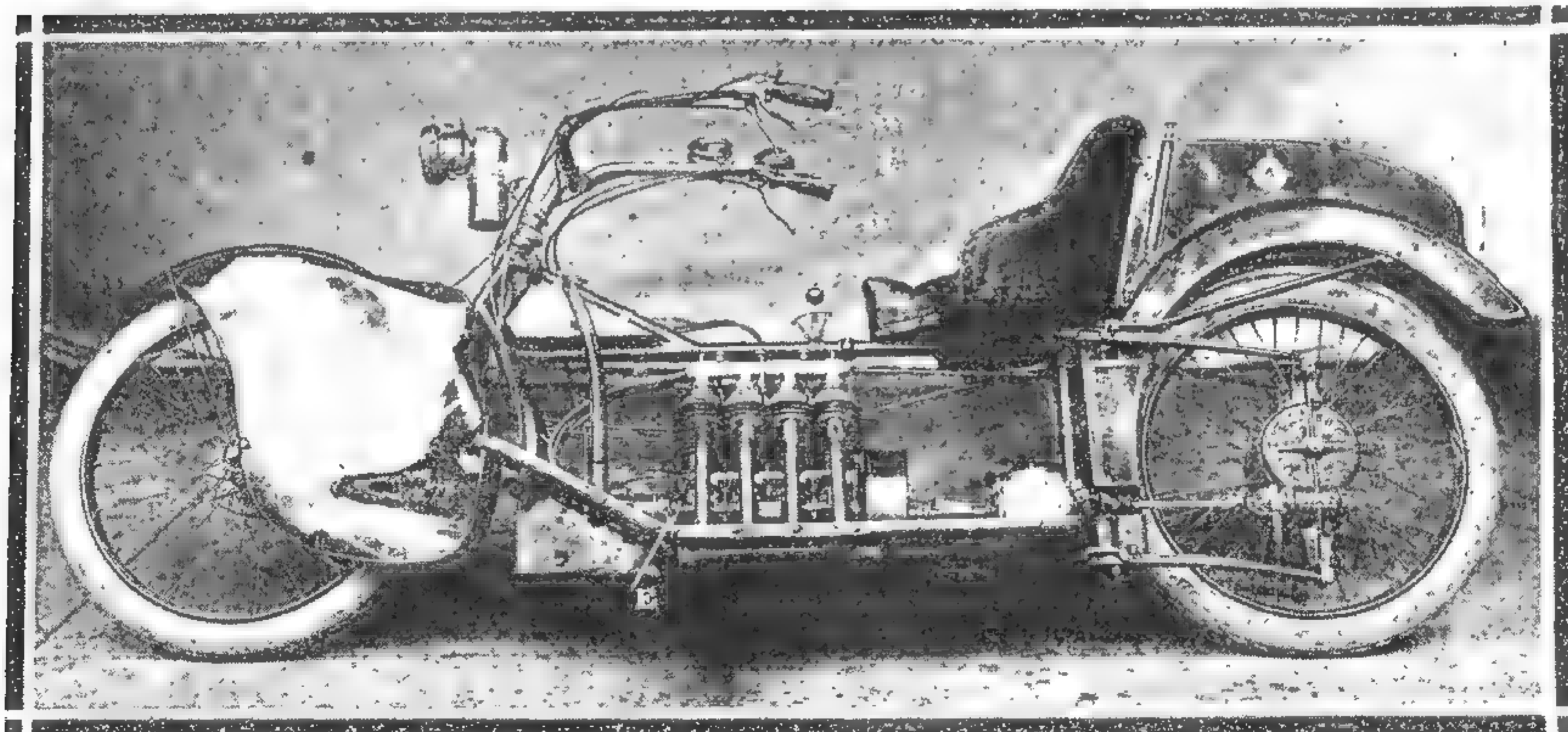


Front Wheel Brake.

On the "Wilkinson" touring autocycle the front wheel is fitted with a brake operated by control lever "D" on the right handle bar. The spring suspension of the wheel and cam control of the brake are also readily seen.

THE AUTO-BI Immediate Delivery On the highest grade motorcycle built.

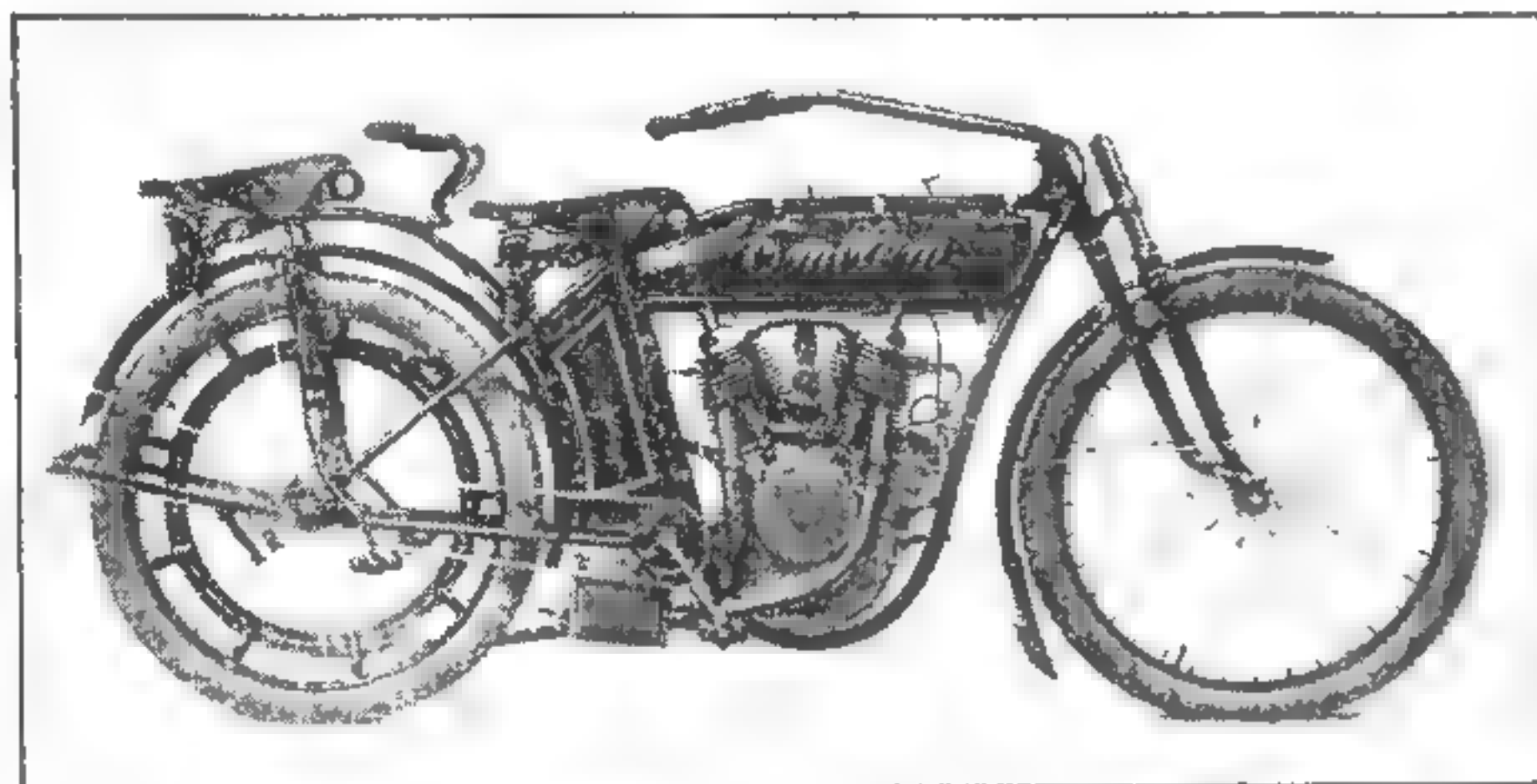
THE AUTO-BI COMPANY
1453 Niagara St., Buffalo, N. Y.



The "Wilkinson" Touring Autocycle.

This view shows the machine with engine guards removed. The machine is slightly tipped in the photo so as to show the underbody as well as to bring up the various control levers. Wheel base is 68 $\frac{1}{4}$ in. 26 in. wheels using 2 $\frac{1}{2}$ in. tires. For further details see text

A Clean Sweep for the Emblem!



THE 1912 EMBLEM IS A DANDY

If you are open to an agency proposition, better write to-day. We are making deliveries now.

EMBLEM MANUFACTURING COMPANY

Member M. M. A.

ANGOLA - - - Erie County - - - NEW YORK

At the Springfield, Ohio, race meet on Labor Day the Speedy Emblem made a clean sweep, winning every event entered. Let the summaries tell the story:

FIRST IN EVERY EVENT

Three miles trade riders, 30.50 cu. in.—L. S. Taylor, Emblem, first.

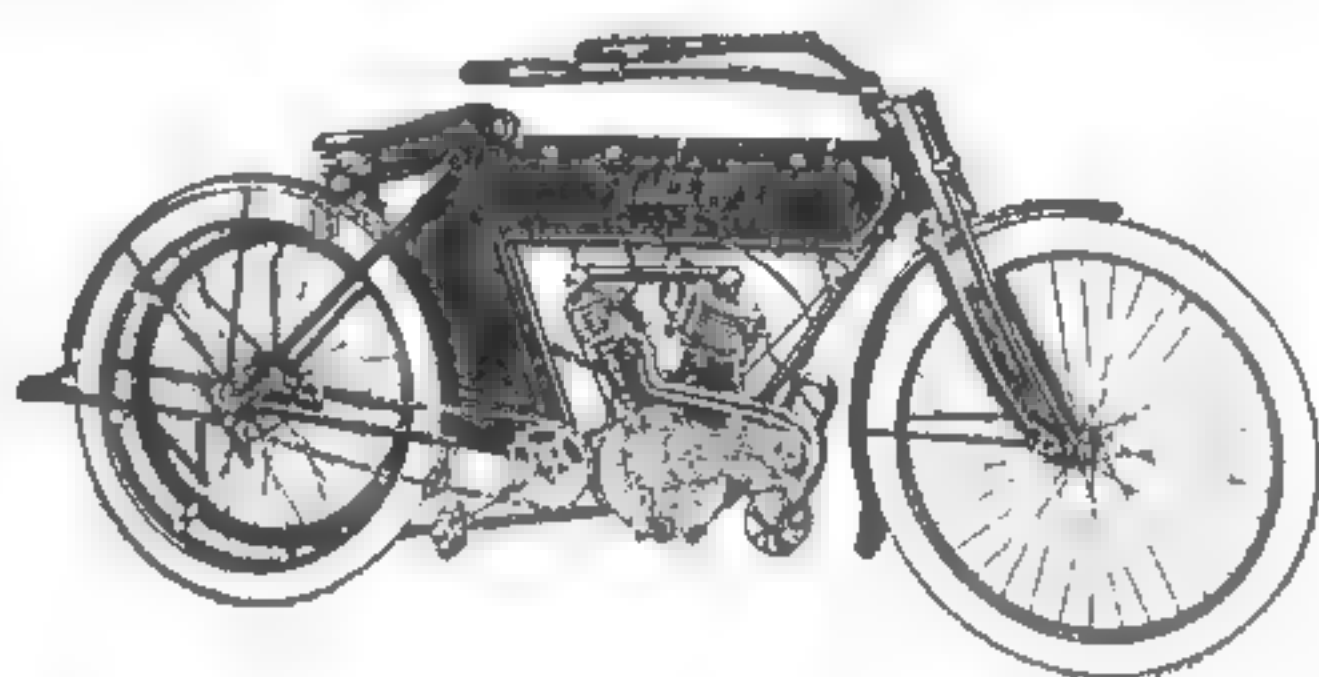
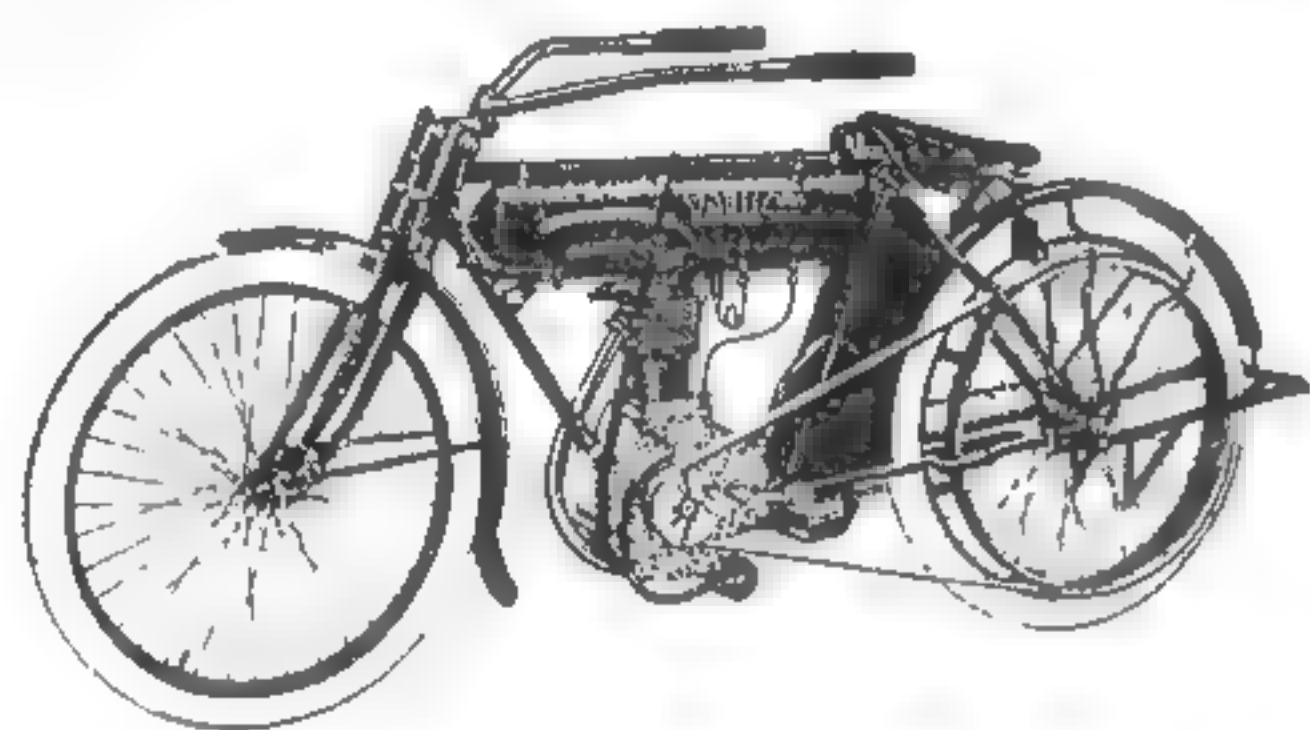
Five miles trade riders, 50 cu. in.—L. S. Taylor, Emblem, first.

Six miles trade riders, 30.50 cu. in.—L. S. Taylor, Emblem, first.

Eight miles trade riders, 50 cu. in.—George Evans, Emblem, first.

Three miles trade riders, second event, 30.50 cu. in.—L. S. Taylor, Emblem, first.

Fifteen miles trade riders, 50 cu. in.—L. S. Taylor, Emblem, first; George Evans, Emblem, second.



1911 YALE Motorcycles

The steady increased sale of the 1911 Models is the best evidence we can offer that Yale Motorcycles are best and that the word Yale means QUALITY in every sense of the word, and QUALITY COUNTS.

We are closing agencies every day with pioneer dealers who have been through the mill and know.

You owe it to yourself to investigate these Quality Motorcycles before spending your money.

THE CONSOLIDATED MFG. CO.

1710 Fernwood Avenue

::

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TOLEDO, OHIO

F. C. Cornish, Eastern Representative, 219 Clinton Ave., Newark, N. J.

We also make Yale and Snell Bicycles, Hussey Handle Bars and Drop Forgings of Every Description.

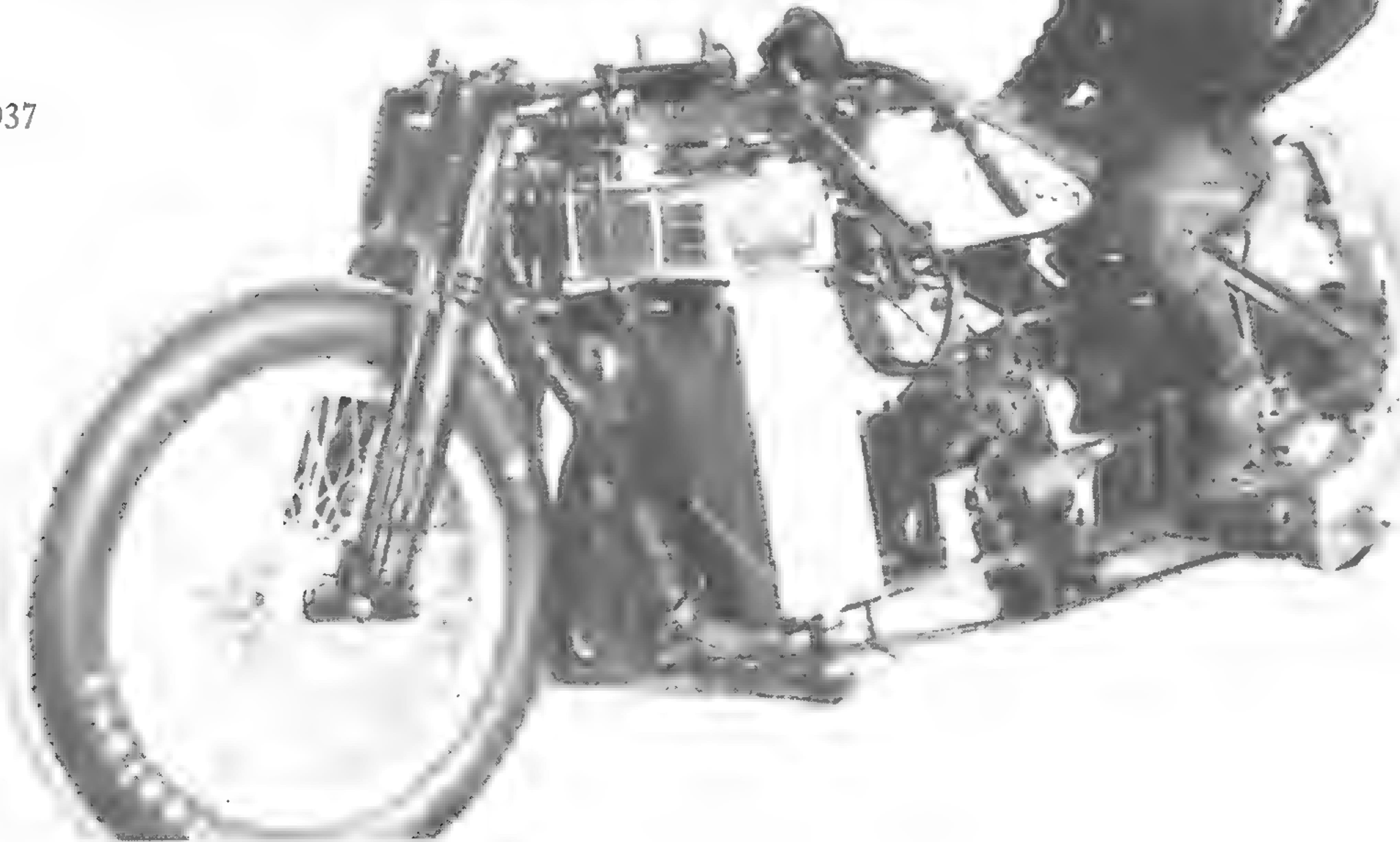
115 H.P. — 1500 POUND MONSTER RACING MOTORCYCLE

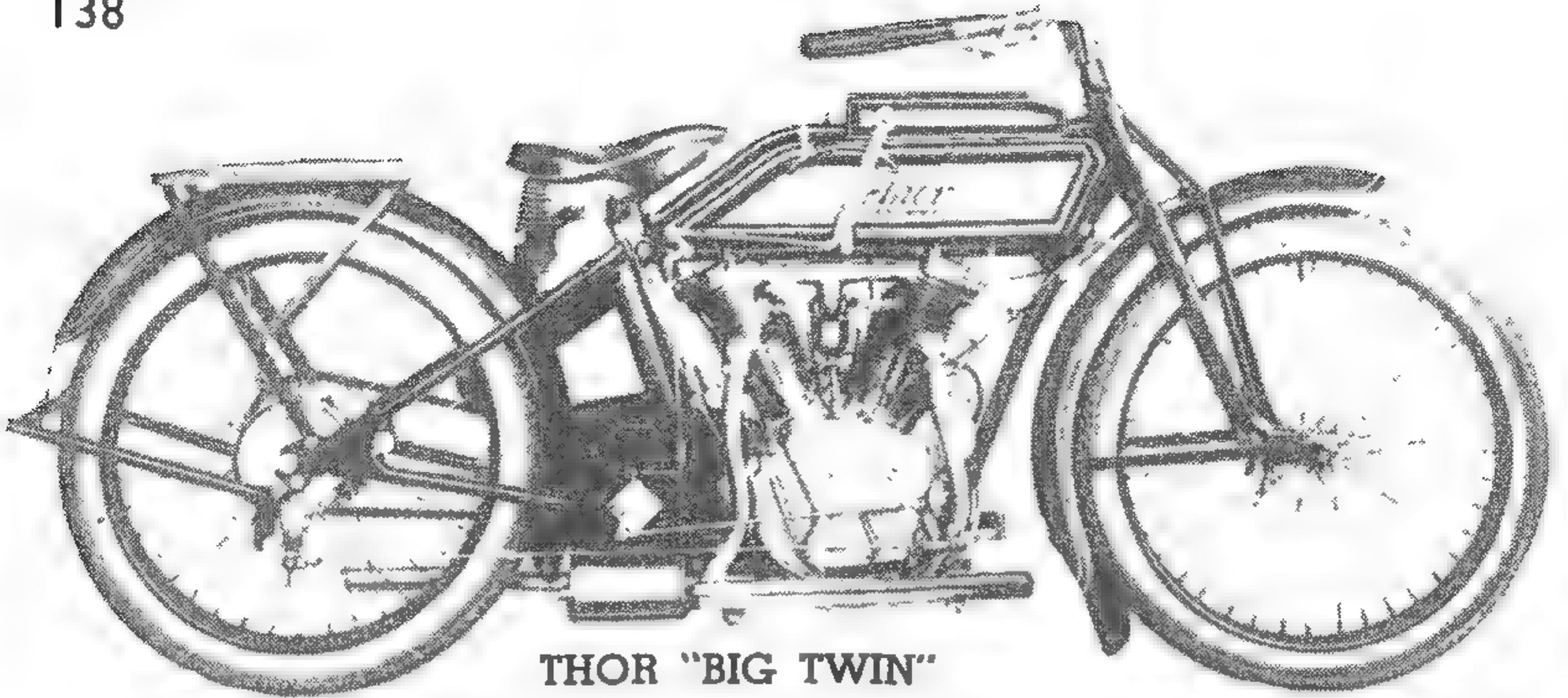
Built at a cost of more than \$3000.00 this giant motorcycle is powered by a special Plymouth six cylinder car engine. It is water cooled and is 130 inches in overall length. The tires are special 30 x 5 Firestone eight ply fabric costing \$100 each. It has 3 speeds and electric starter. Steering is by remote control with a chain from handle bars to steering head.

On each side of the rear wheel retractable landing skids are used to keep machine in upright position while getting under way and for stopping. It was built and ridden by Fred Luther a Los Angeles auto garage owner and former motorcycle racer for use on the salt beds at Bonneville, Utah. It is called the "Super Dooper." Perhaps after the war we shall hear more of it!

This photo shows Luther mounted on the "Monster" at Bonneville Flats, Utah. Note cracks in salt surface that appear at times on this famous speedway of salt.

1937





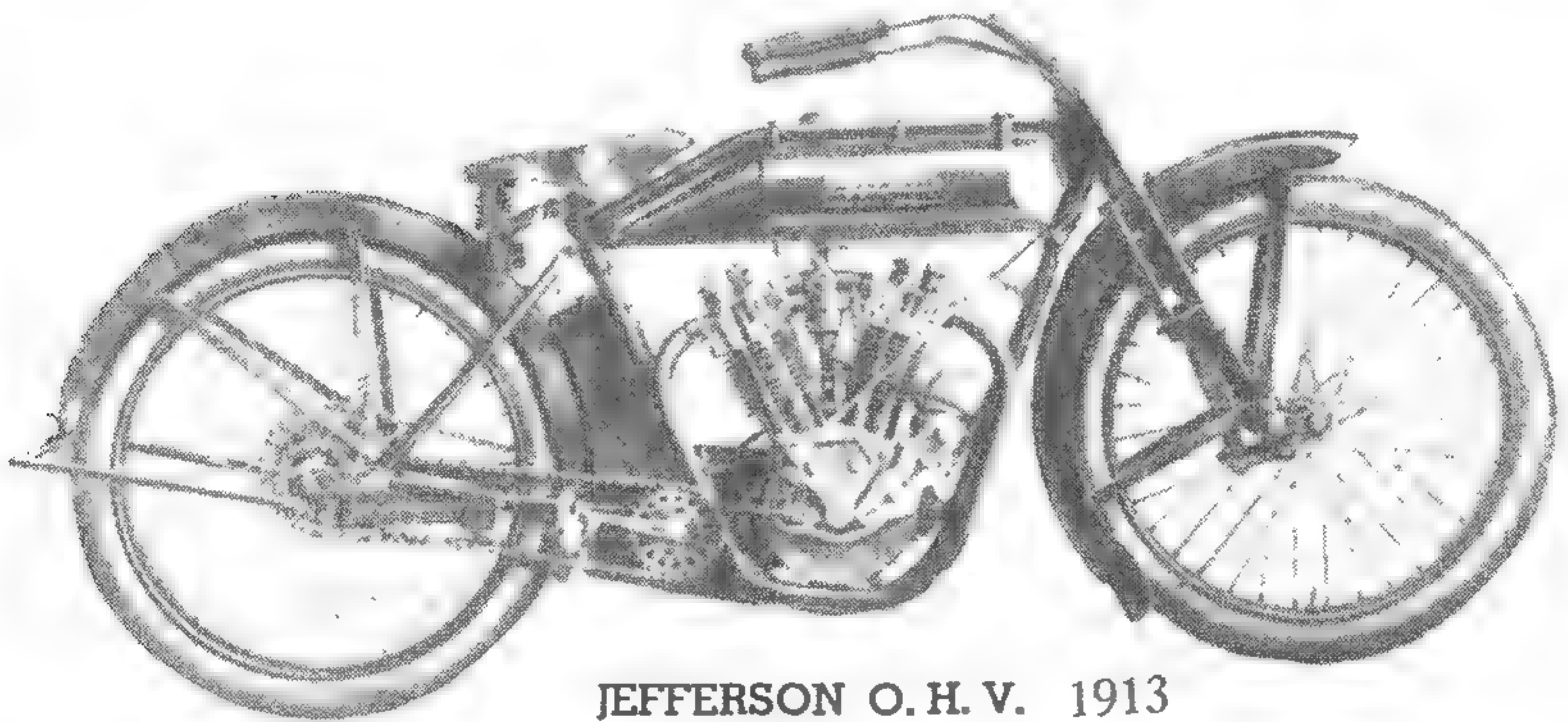
THOR "BIG TWIN"

This was one of the last Thor models built, having a 3 speed transmission and a 9 H.P. engine, which was considered a large motor in 1915.

The fork springs were enclosed inside of the main fork frame and the fork operation was very good. The machine handled well. Tools were carried on the top of the tank in a flat box. The intake valves were located over the exhaust and the rocker arms were enclosed. Note the exceptionally long footboards.

Early in motorcycle history Thor built motorcycle engines that were used by other manufacturers. The first Indians and Reading-Standards were powered by Thor engines.

In the early days of motorcycle racing, Thor machines were fast and won many important races. Most of the Thor racing success was due to the engineering ability of William (Bill) Ottoway, who has for many years been an engineer at the Harley-Davidson factory. Thor racing successes declined soon after Bill Ottoway left them.

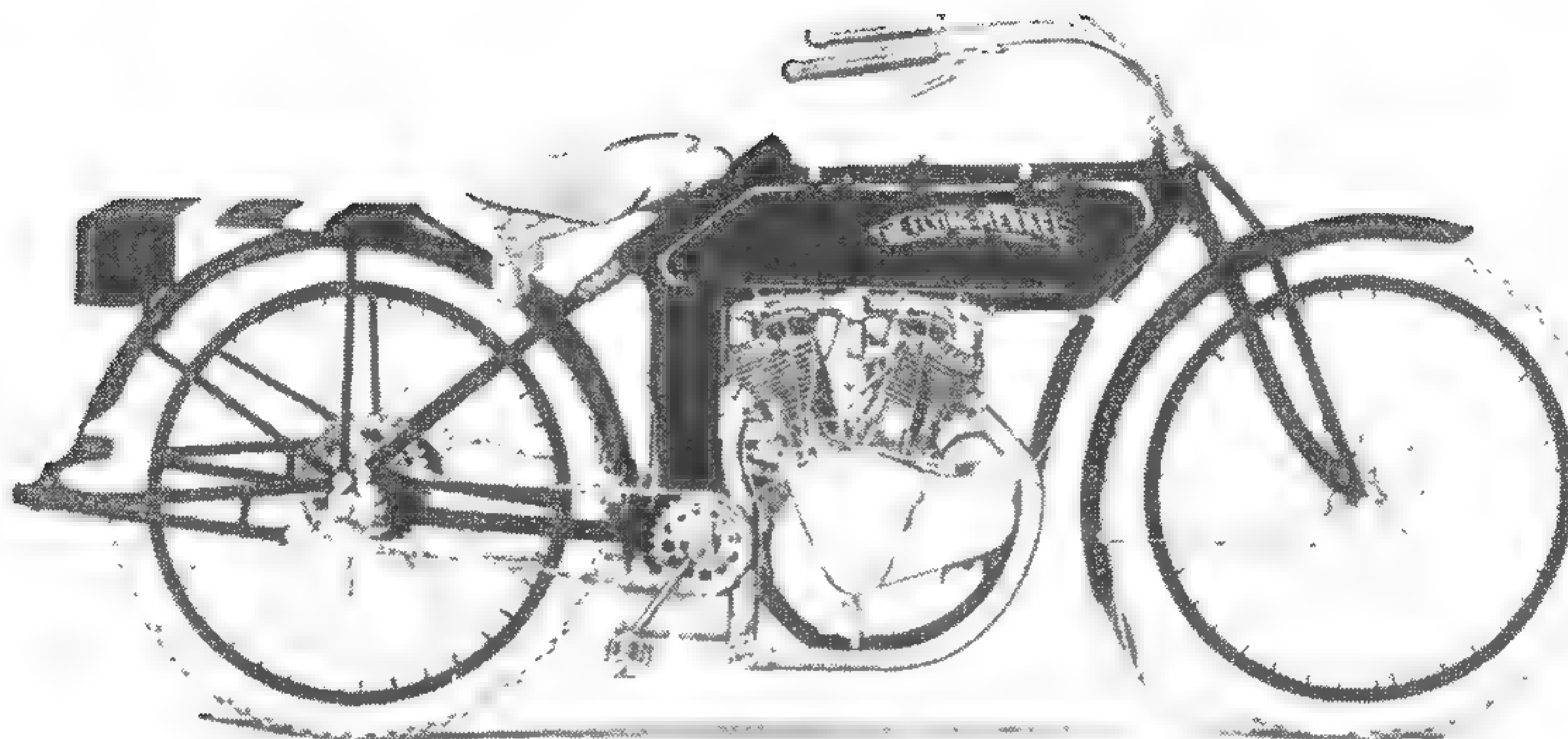


JEFFERSON O.H.V. 1913

This "61" overhead valve twin was quite popular in racing circles for a short period of time. The machine first came out as the P.E.M., which were the initials of the designer, Perry E. Mack. They built an overhead valve single which won many races on half mile dirt tracks. These machines were equipped with a unique spring frame and front fork, both using flat leaf springs, and the machine did ride quite well. The German Bosch Magneto, Schebler Carburetor and Eclupse clutch were used. Corbin "V" brake.

One of the most prominent racing men for the Jefferson Company in the early days of their racing careers was Dudley Perkins, now Harley Davidson dealer in San Francisco. Perkins won many dirt track races on Jeffersons in the early days of his racing career.

Photos from Motorcycling(England)

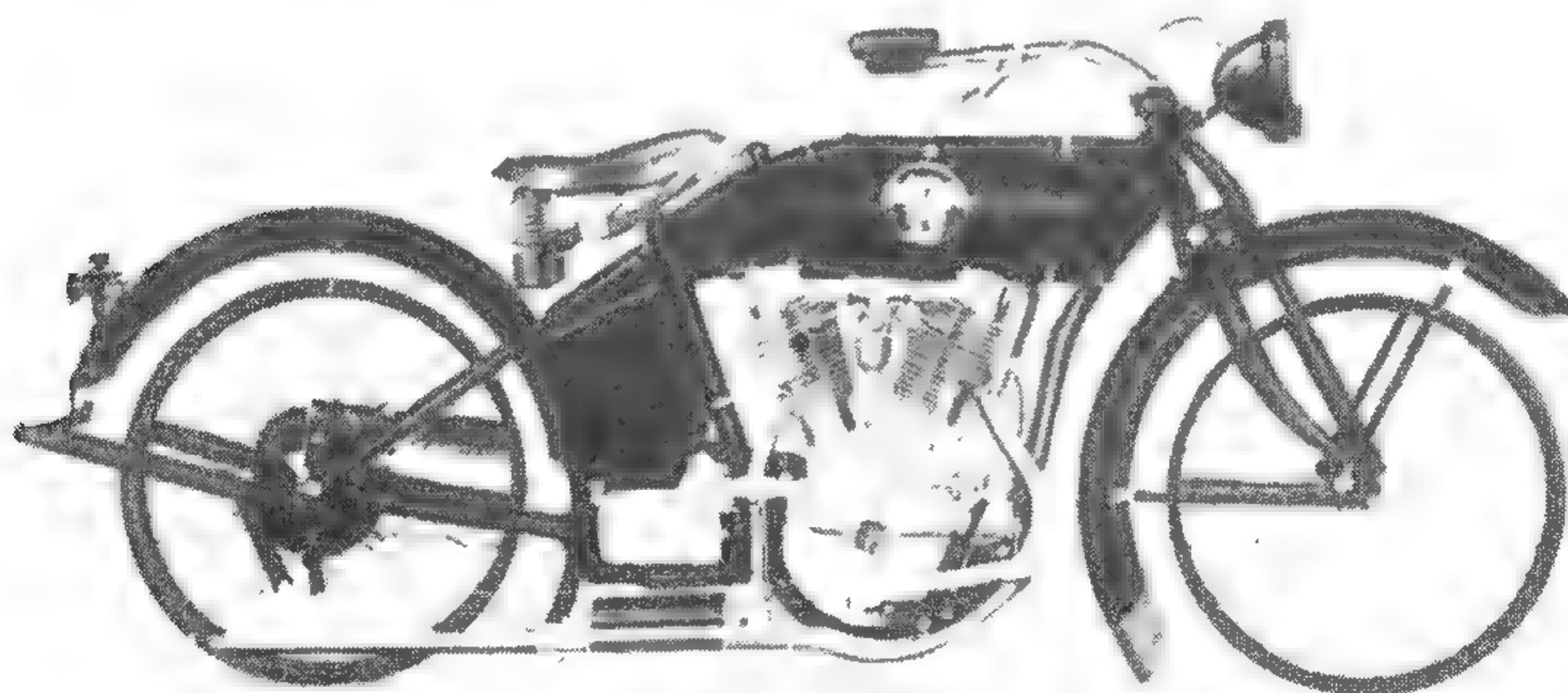


THE FLYING MERKEL

This 1913 Merkel had many good features, including an enclosed spring frame and telescopic type front forks. Note the large tube in front of the saddle which housed the spring. I remember this particular model first came out with a ball bearing connecting rod and these bearings were good for anywhere from 50 to 1000 miles. The factory replaced them with roller bearing rods at no cost to the rider. Bosch magneto ignition 28 x 2½ tires. Most Merkels were a bright yellow color. A few were blue

The single speed 7 H.P. motor was equipped with an Eclipse clutch, sometimes called "Free Engine." Notice the nifty exhaust cut-out located directly in front of the pedal and which was operated by the toe. The oil was carried in a large tube which formed a part of the frame, located back of rear cylinder. Not a bad idea.

Photos from Motorcycling(England)



DAYTON TWIN 1916

This machine was built by the Huffman Manufacturing Company, makers of the Dayton Bicycle. The machine had a unique spring system on the front fork. The spring was made in the shape of the front fender (and was almost hidden by the fender). The spring extended about a foot in front of the fork head and about the same distance below the fork head, which gave it a rocker action, pivoting on a spindle at the lower end of the fork stem

This machine had a Spacke engine, made in Indianapolis. It was quite a large engine rated at approximately 9-10 H.P. This engine had an unusual method of operating the valves, using dogs or jumper pawls instead of cams. Bevel gears through a cross-shaft operated the magneto, which was located directly in front of the crank case, although it can not be seen here. I recall distinctly that these machines were very hard to time, due to the unorthodox design of the valve operating mechanism and many good mechanics were "stumped" by the freakish design.

This engine was also used in a motorcycle sold by Sears, Roebuck & Company, called the "Sears." It was also used in the Minneapolis and a few other makes of minor importance

The Dayton Company, still in business, is one of the two makers now permitted by the Government to manufacture Victory Bicycles



\$135 *Evans* **\$135**

POWER-CYCLE

Are you looking for sales problems and trouble? Or are you wishing to move with the trend of the times?

You'll find that you can sell Evans Power Cycles to more persons than you can any other motorcycle. The Evans sells for a moderate price and it gives dependable service at the lowest outlay per mile.

You will be pleased with the terms of the Evans Power Cycle franchise, too.

Will you ask for it?

Cyclemotor Corporation
Rochester, N. Y.



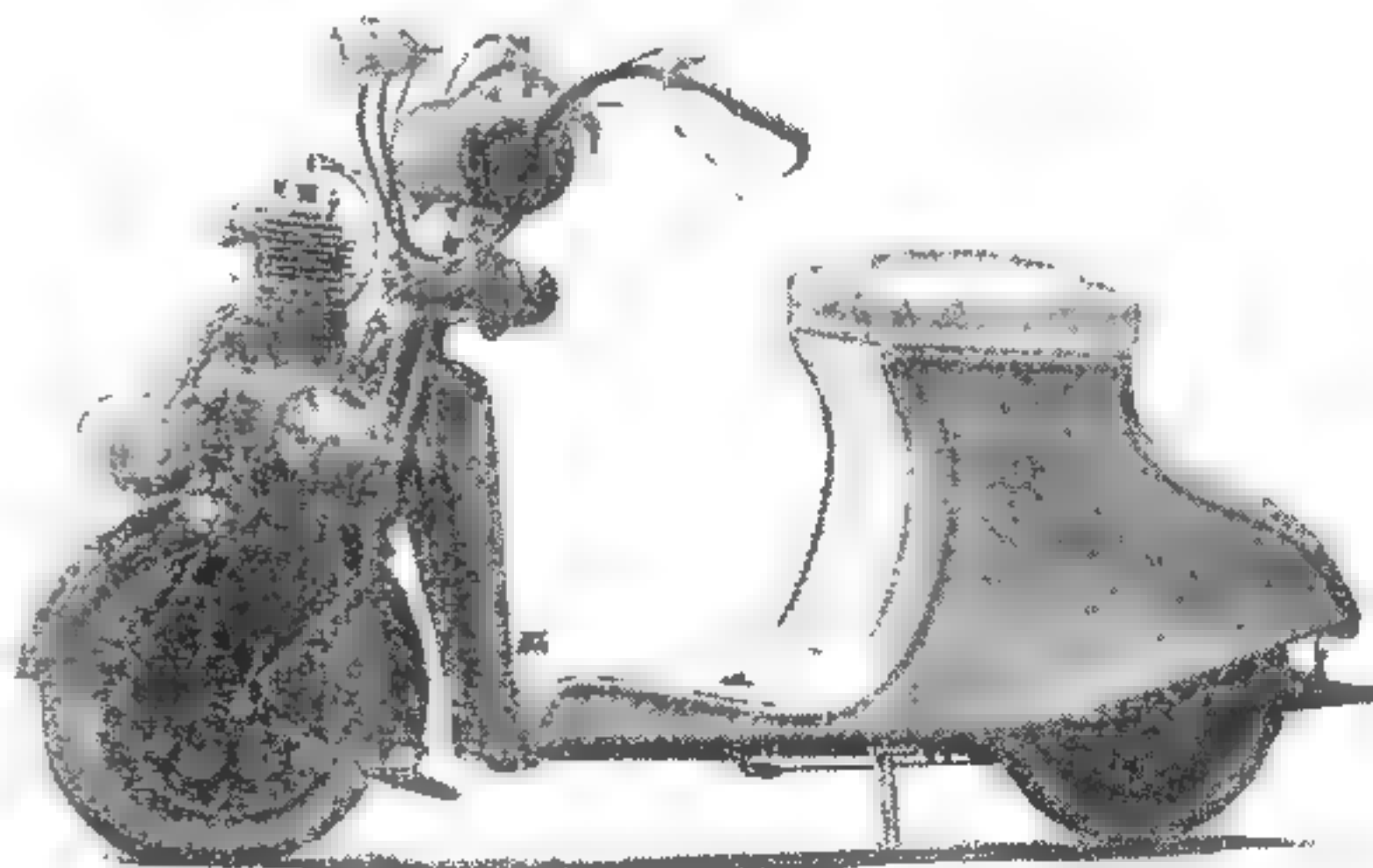
THE AUTO-GLIDER MOTOR-SCOOTER

1915

The first motor vehicle was produced in England over 100 years ago. The maker cranked it over with his foot, and that bill was paid with a patent. Powered with a 292 cc. Valler, two stroke engine. The steel tube chassis was fitted with leaf springs front and rear and transmission was by chain through a steel plate clutch which also acted as a shock absorber. The 16 x 2 1/2 tires were fitted to steel disc wheels and there were two external band brakes.

Two types were made, the sit down style described here and in there in which the rider stood up on a low level platform.

Many years ago there was produced in the U. S. a front wheel driven motor called the Auto Pedal on which the rider stood up. We are trying to locate a photo of this later production.



The Autoglider Motor Scooter

PHOTO FROM The
Motorcycle(England)

The Skootamota Club of Paris

*France had motor scooters in 1920, as evidenced by this article
from July 20, 1920, Motor.*



The Skootamota Club recently held its first race meet in the Bois and all Paris attended. On the left is Mlle. Sweitzer, who won the race, in the center Mlle. Myrtho Laverne, a famous French screen star, and on the right Mlle. Mistinguette of the Vaudeville Theatre

'22 Wallops '21 in Reading, Pa. Score 19 to 4!

THE season just getting under way and records smashed already! Weak, old 1921's batting average knocked sky high by 1922's prize pair of heavy hitters—Hettinger Brothers, Cleveland dealers at Reading, Pa.

The Hettingers wrung four sales out of dry old 1921 selling season up to March 5th, 1921. Over the same period this year, they have more than quadrupled that mark by selling 19 Clevelands.

Over the twelve-month period, August 1st, 1920 to August 1st, 1921, these dealers sold 9 Cleveland Motorcycles. From August 1st, 1921, up to March 5th, 1922, scarcely more than 7 months, and the good selling season not yet open, they have sold 19 Clevelands, eleven magneto models and 8 electric models!

A trick? Luck? No—just a firm knowledge that it can be done, followed by going out and doing it! They believe with us that the Cleveland is the logical, sensible solo motorcycle and that every wage-earner is a prospect—and they're proving that we're right! They are selling Clevelands fast and profitably in a town of only 100,000 population, in mountainous territory, and in the shadow of a plant turning out a high-priced motorcycle!

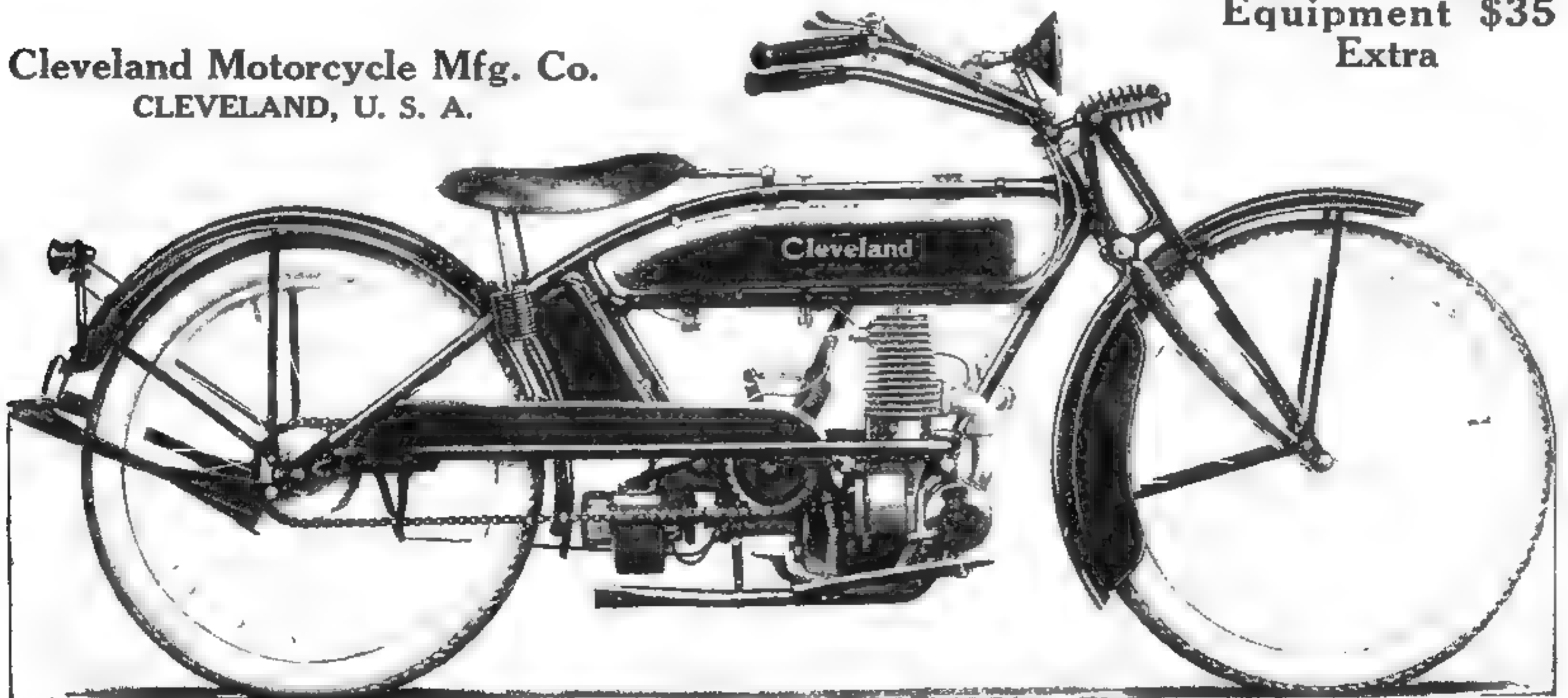
Using that as a gauge, what could you do with the Cleveland in your territory? Write *now* for the Cleveland Dealer Prospectus.

Cleveland Motorcycle Mfg. Co.
CLEVELAND, U. S. A.

The price you can
quote without an
apology

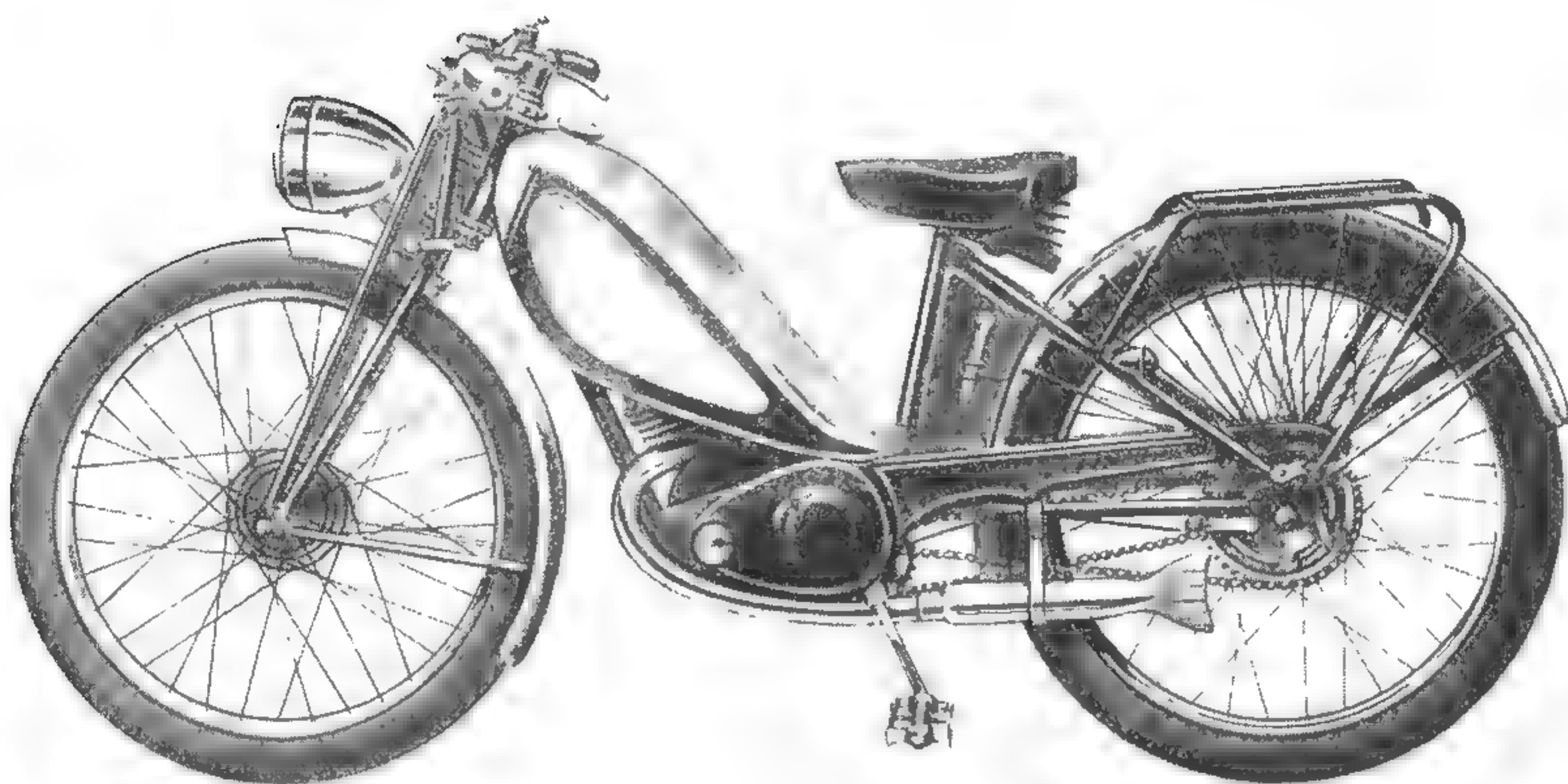
\$185

Electric Lighting
Equipment \$35
Extra



MONET-GUYON—A PRE-WAR FRENCH MOTORCYCLE

1930

**D1**

D 1. Standard, Monovitesse, simple échappement. — Présentation : gris et chrome.

D2. Luxe, 2 vitesses. — Pneus de 600 x 60 — Garde-boue avant très enveloppant. — Présentation : gris et chrome.

D3. Luxe, moteur piston plat, — 2 échappements. — 3 vitesses. — Kick-starter. — Pneus de 600 x 60 — Garde-boue très enveloppants. — Présentation : gris et chrome.

MODELES DAME à protection totale

spécialement étudiés pour Dames et Ecclésiastiques, ces modèles réunissent les qualités d'esthétique et de confort. — La calandre chromée, d'un joli dessin, largement dimensionnée, assure une protection parfaite contre les souillures.

————— ÉCLAIRAGE ÉLECTRIQUE COMPRIS —————

ASMASHING ECONOMY VICTORY

FOR

HARLEY - DAVIDSON

The Harley-Davidson New Type Single Motorcycle, Ridden by C. D. Lindsley, Has Just Established a New World's Five-Gallon Economy Record.

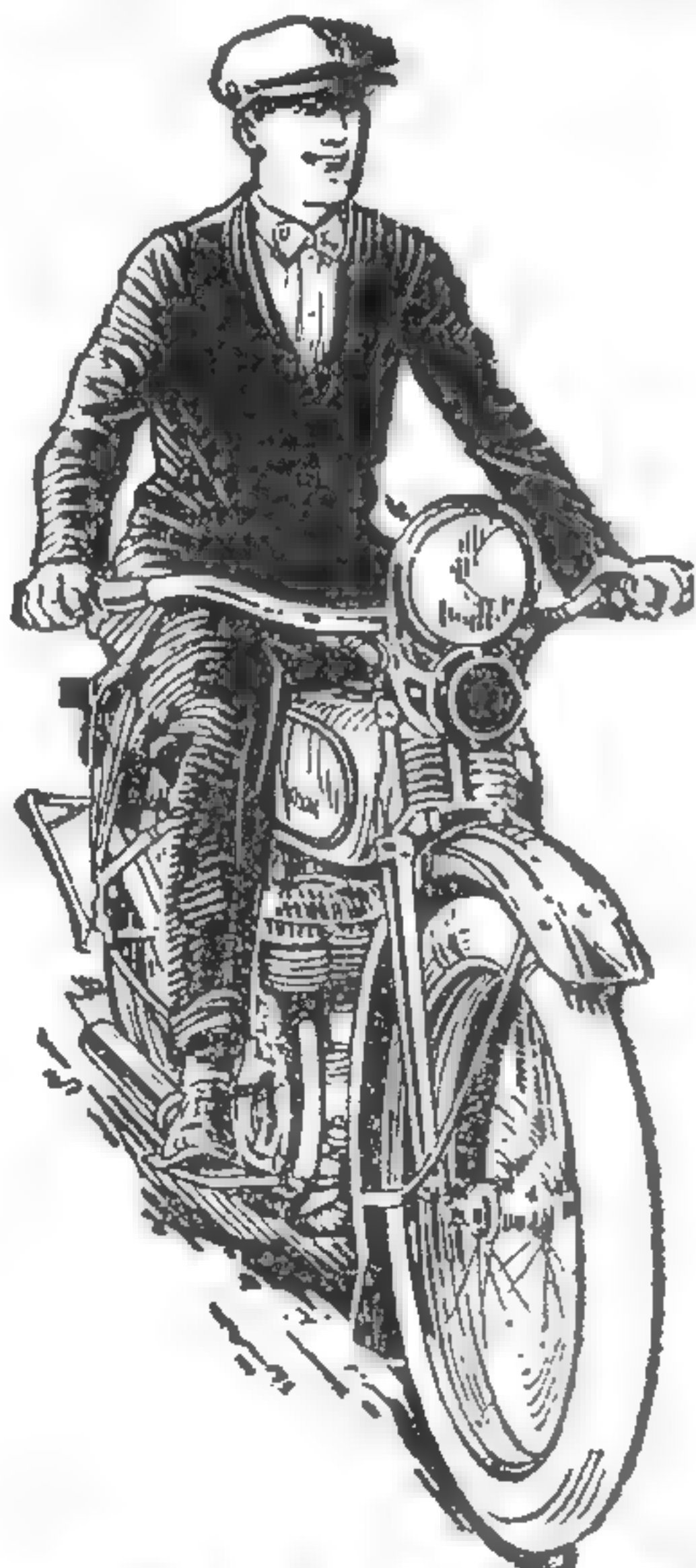
**515 MILES 5 TENTHS, 112 FEET
Averaging 103 Miles Per Gallon!**

Under ordinary driving conditions, thru traffic, including stops and starts, thru Denver and vicinity—

THIS STRICTLY STOCK HARLEY DAVIDSON has covered more miles than ever made before by a gasoline-propelled vehicle on five gallons of gasoline.

OFFICIALLY SANCTIONED BY THE AMERICAN MOTORCYCLE ASSOCIATION and carefully checked by A. M. A. Referee W. W. Whiting and other judges, this test has proved without a doubt that

The Single Is America's Finest Solo Mount



**The Record-Breaking
Single Is Now on
Display in Our
Window**

Here is the record-breaking Single that defies all comparison when it comes to low transportation costs. For less than 1 cent a mile you can operate this modern, complete, compact Single. It handles easier than a bicycle. Fully equipped with Balloons, Alemite, Ricardo Head, Three Speeds, Electric Lights, Generator, Battery and other modern improvements.

Dependable, economical, durable and safe—that's Harley-Davidson Single all over. It's the New Type Motorcycle—different than all previous models. See it, ride it and be convinced.

FLOYD CLYMER, Inc.

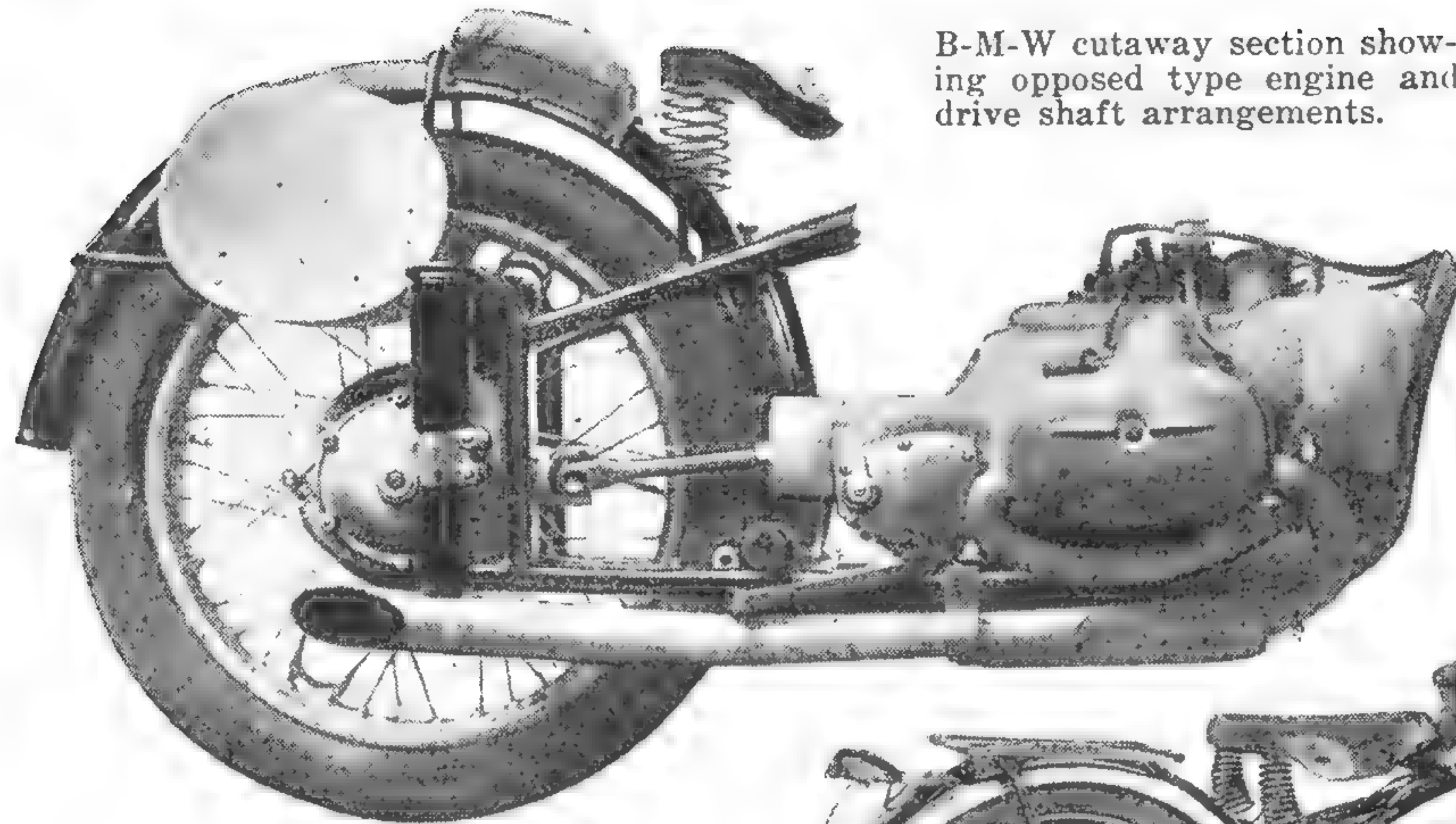
749 Broadway

Denver

Champa 219

1943

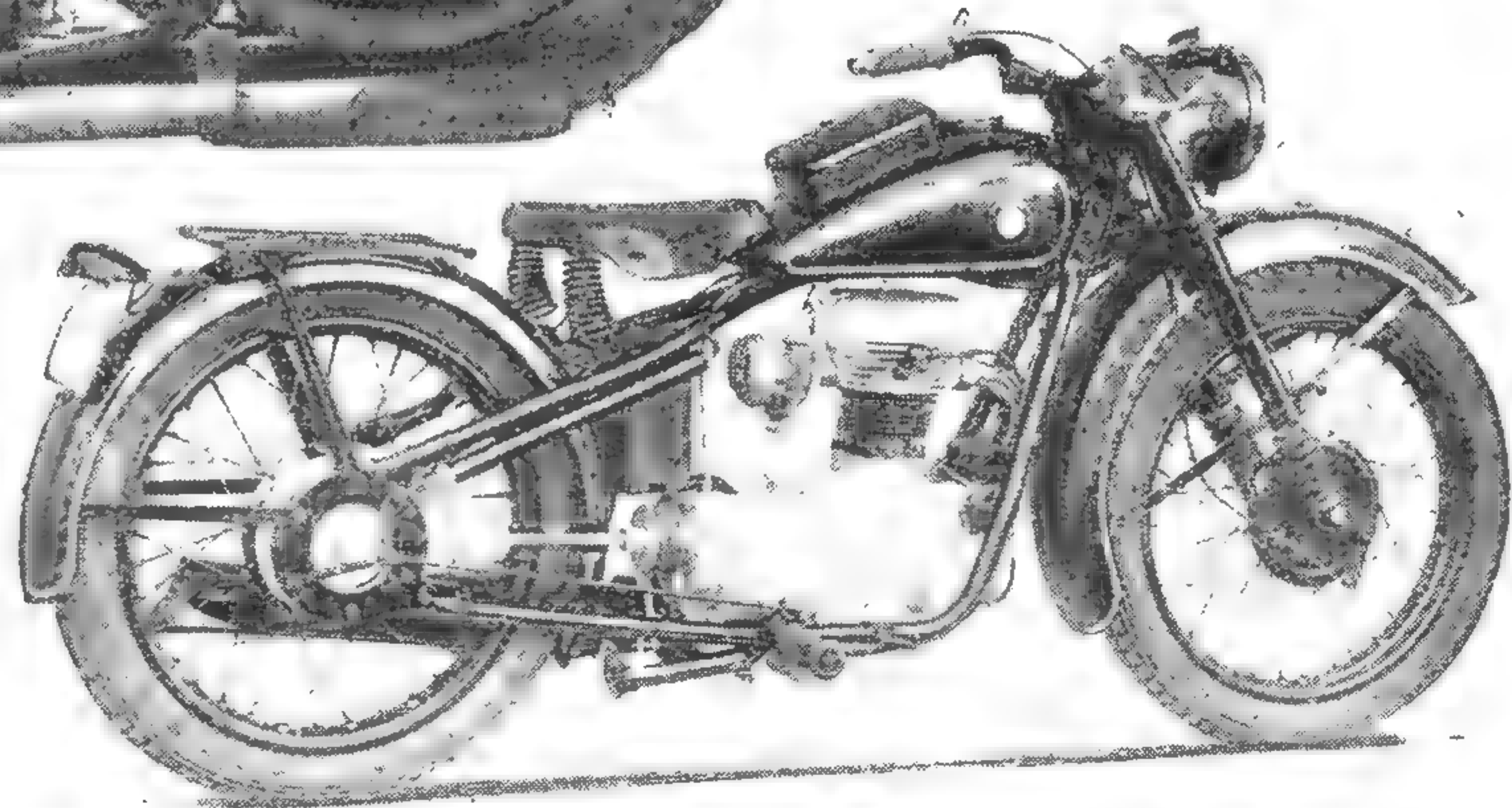
MOTOR CYCLING



B-M-W cutaway section showing opposed type engine and drive shaft arrangements.

ILLUSTRATIONS ARE
OF GERMAN B.M.W.
MACHINES WITH
SHAFT DRIVE AND
HYDRAULIC FORKS.
From British
Magazines.

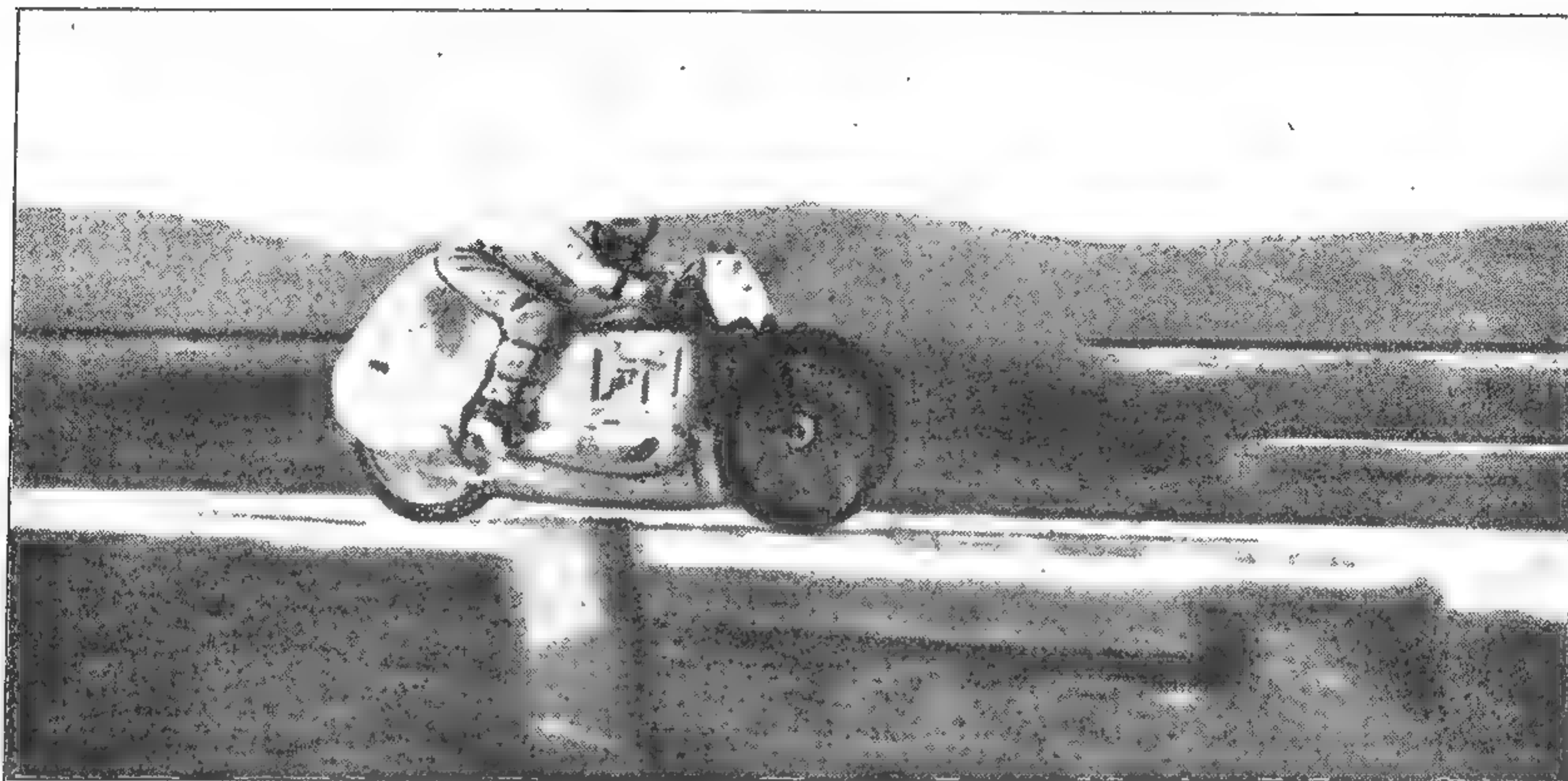
MOTOR CYCLE



The desire for final shaft drive on post-war de luxe models was expressed by several speakers. Whilst this method of transmission must appeal to the mechanically minded an estimated additional cost of £7 to £9 over enclosed chain drive is likely to reduce the number of models so equipped.

For the first time the 190 c.c. o.h.v. B.M.W. is being shown in this country. The engine has totally enclosed valve gear and is in unit with the three-speed foot-controlled gear box. Shaft drive is employed

MOTOR CYCLING (England)



Do you remember this incident? Who is the rider and what make of machine is he riding? Here are the answers:—the rider is A. E. Simcock; the machine is a supercharged J.A.P.-engined Brough-Superior. The attempt is a world's speed record effort at Tat, near Budapest, in 1932. It failed, but Simcock did get the sidecar record at 124 m.p.h.

HUSQUARVA IS A POPULAR MOTORCYCLE MADE IN SWEDEN.



A Swedish attempt at streamlining in 1930. The rider is F. Mannerstedt and the machine a Husqvarna, on which he broke the Swedish 350 c.c. sidecar flying kilc and mile records. The rear wheel is only 16 ins. in diameter. Standing behind the sidecar is Ernst Henne.

More Controllable Power More Comfortable Speed

are two of the qualities that cause the four cylinder motorcycle to fit in so admirably with present day motorcycle demands.

When you can throttle down your two-wheeler to the slowest crawl and then, quick as thought, jump away like a bird—when at 70 or 80 miles an hour your mount holds the road like a high powered motor car—your idea of ideal motorcycling immediately changes.

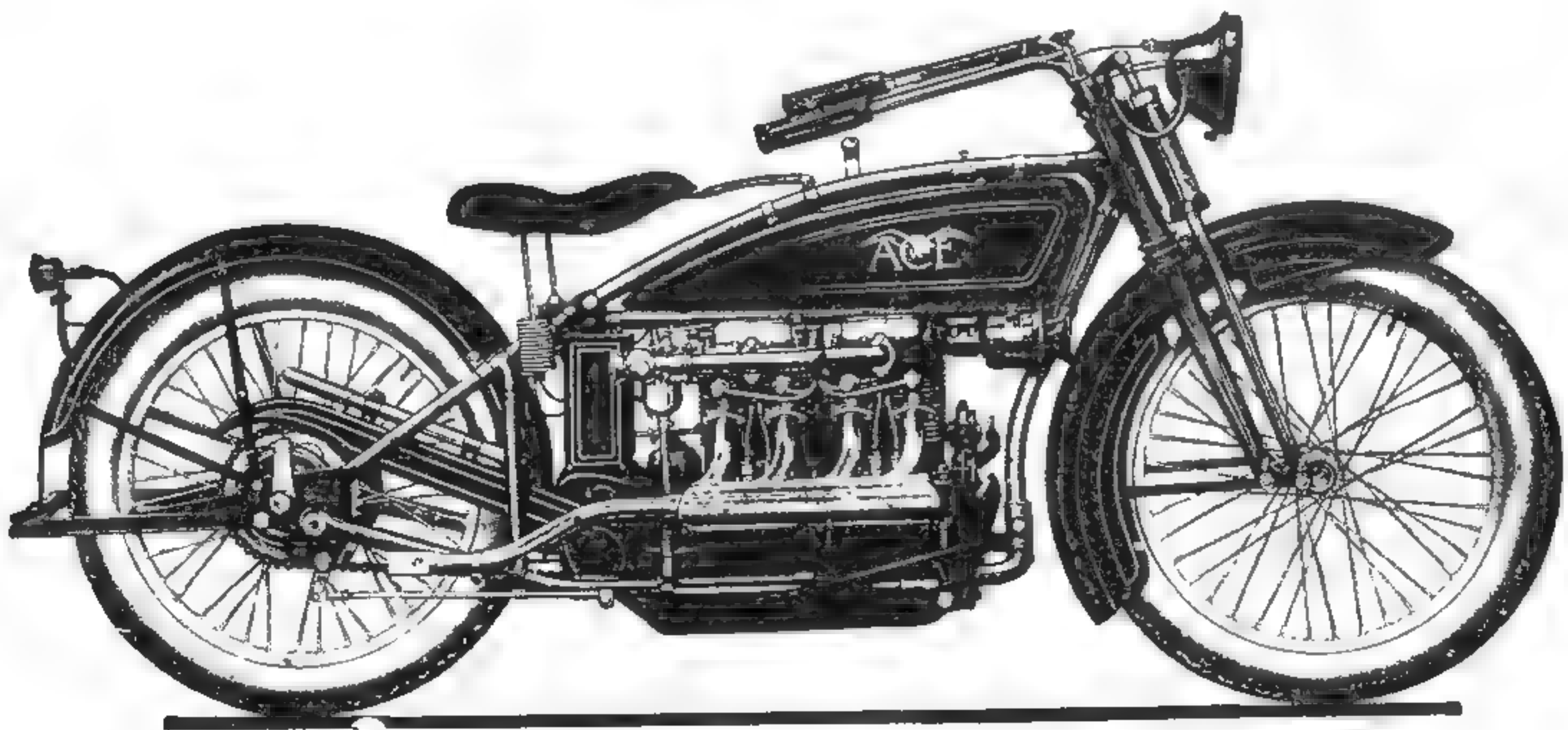


WIDE AWAKE AGENTS

have sensed this change. Accordingly, they are adjusting themselves to the new order of things. All of which explains why agents are now clamoring for the Ace agency.

Write for our proposition

ACE MOTOR CORPORATION
Philadelphia, Pa.



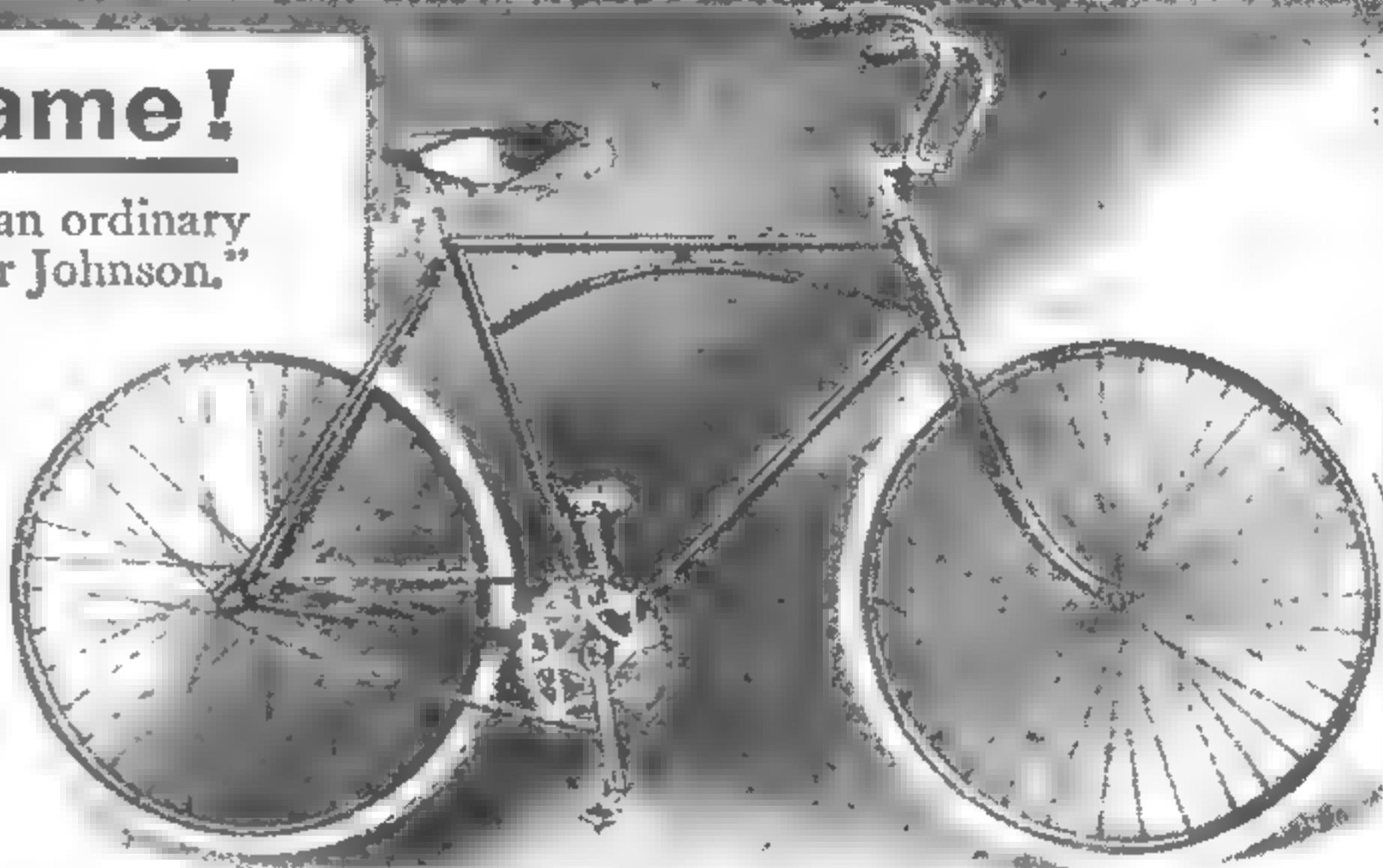
Don't forget to mention MOTORCYCLING & BICYCLING

You Pay for the Name!

The Iver Johnson costs about \$5 more than ordinary bicycles. You pay that \$5 for the name "Iver Johnson."

For if the prestige of our name were not at stake we could use welded instead of seamless tubing; castings instead of drop forgings; hastily tempered bearings instead of the finest bearings that ever went in a bicycle; cheap paint and varnish instead of five coats of hand-rubbed enamel.

You pay \$5 extra because the name "Iver Johnson" guarantees a standardized, well made, fast and durable bicycle. Prices, \$30 to \$55. Juveniles, \$20 to \$25.



IVER JOHNSON

The same argument holds good on Iver Johnson Revolvers.

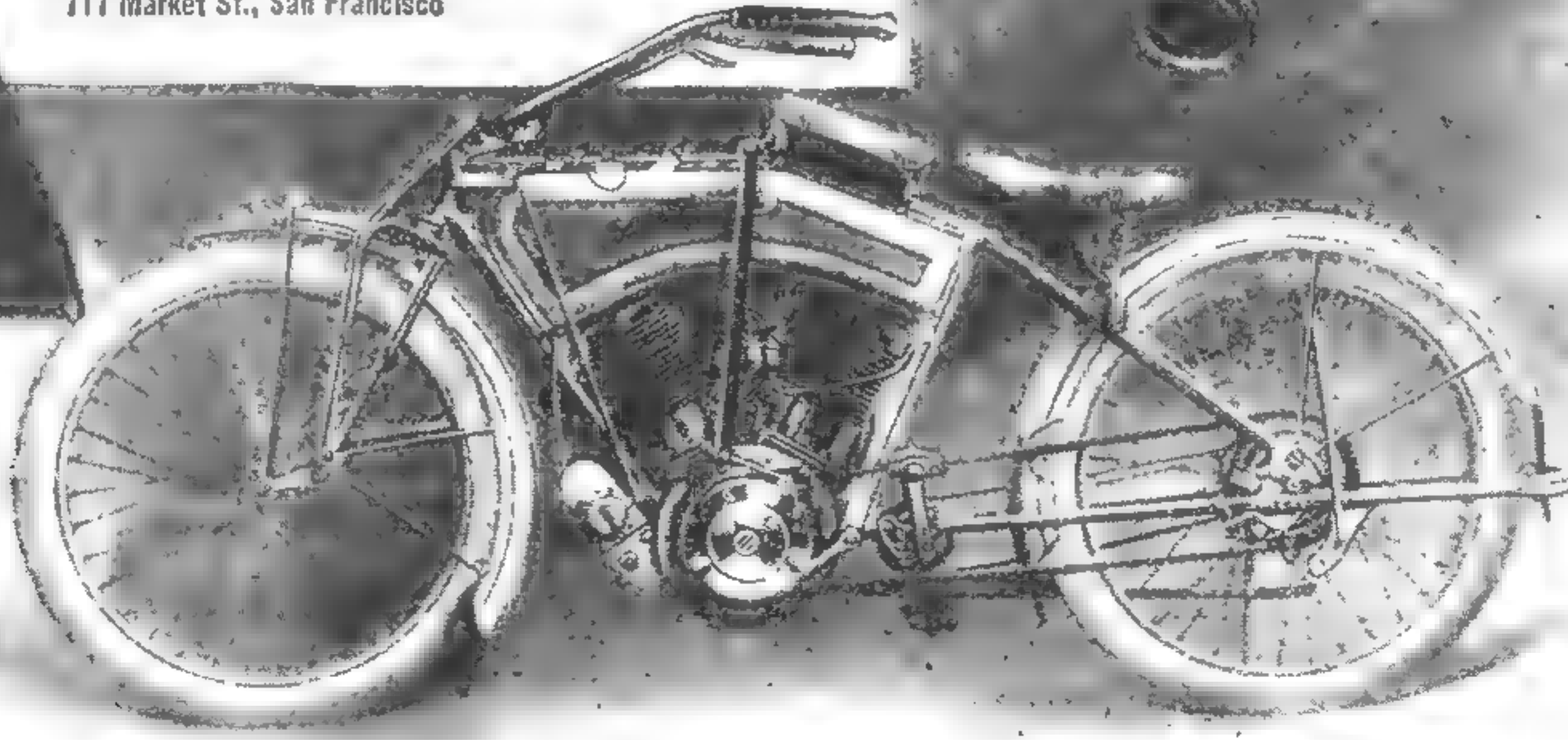
You can buy for much less a revolver that is just as shiny, hard and heavy as the Iver Johnson. You pay the difference because you know that the name "Iver Johnson" stamped on the barrel assures you of absolute safety, positive accuracy, a full equipment of unbreakable, permanent tension wire springs and finest steel and workmanship.

There are 35 points like the following wherein the Iver Johnson Motorcycle differs from other machines. In the 'Twin motor there are two crank pins. Both pistons occupy relatively the same positions in the cylinders, with the result that the power strokes come at regular intervals. In other motors with one crank pin the power strokes are at irregular intervals. 34 other superiorities are explained in our 82-page book (stiff board covers). This book also tells of Iver Johnson Safety Automatic Revolvers, Iver Johnson Champion Shotguns and Bicycles. It is free.

IVER JOHNSON'S ARMS & CYCLE WORKS

136 River Street, Fitchburg, Mass.

99 Chambers Street, New York
717 Market St., San Francisco

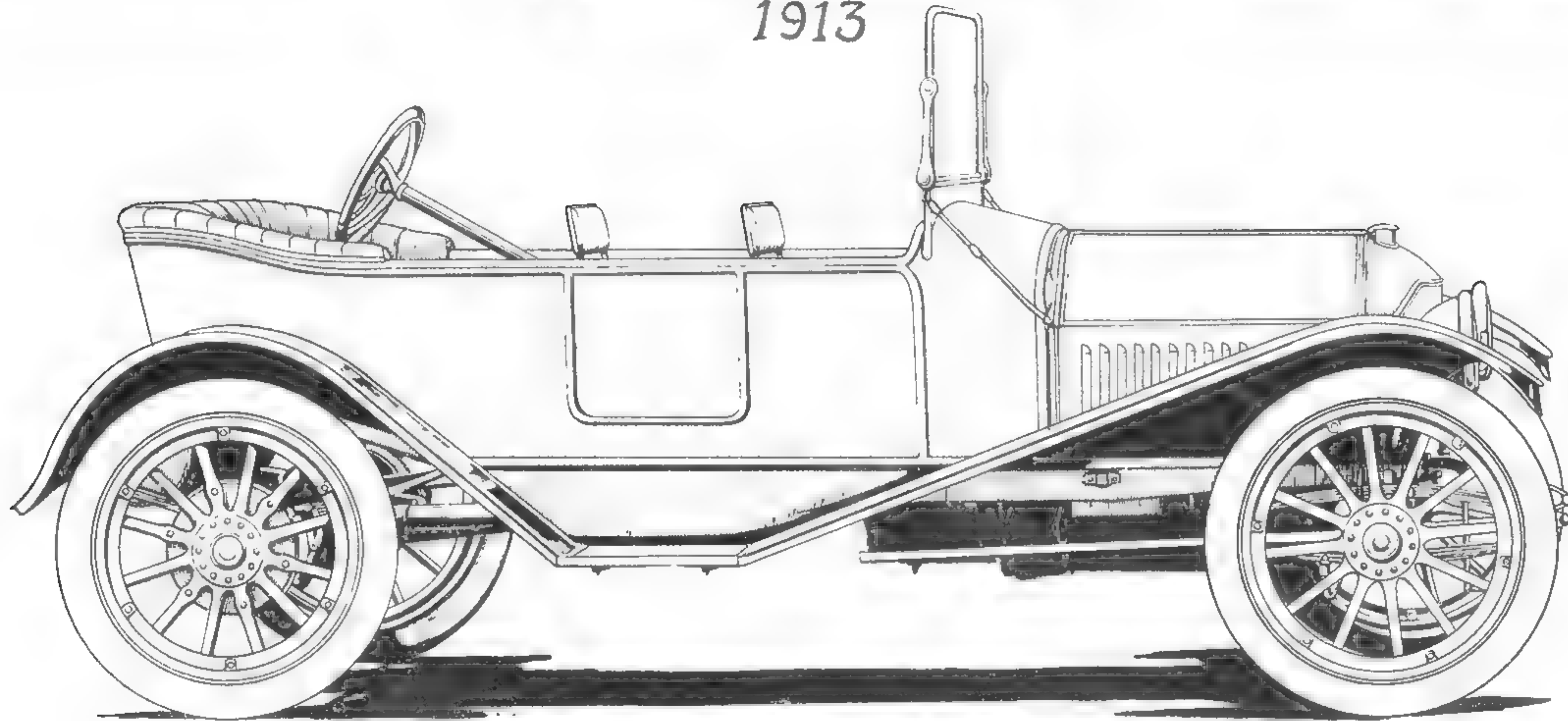


Something New,
Something Exclusive,
Something Individual,

The Duck

1913

Something Different,
Something Like No Other,
Something you Will Want.



FOUR CARS IN ONE.

The Newest, Latest, Best Thing Ever Produced in the Auto Line.

1—A Runabout-Roadster of the very latest type and highest class.
3—A Touring Car of great luggage capacity.

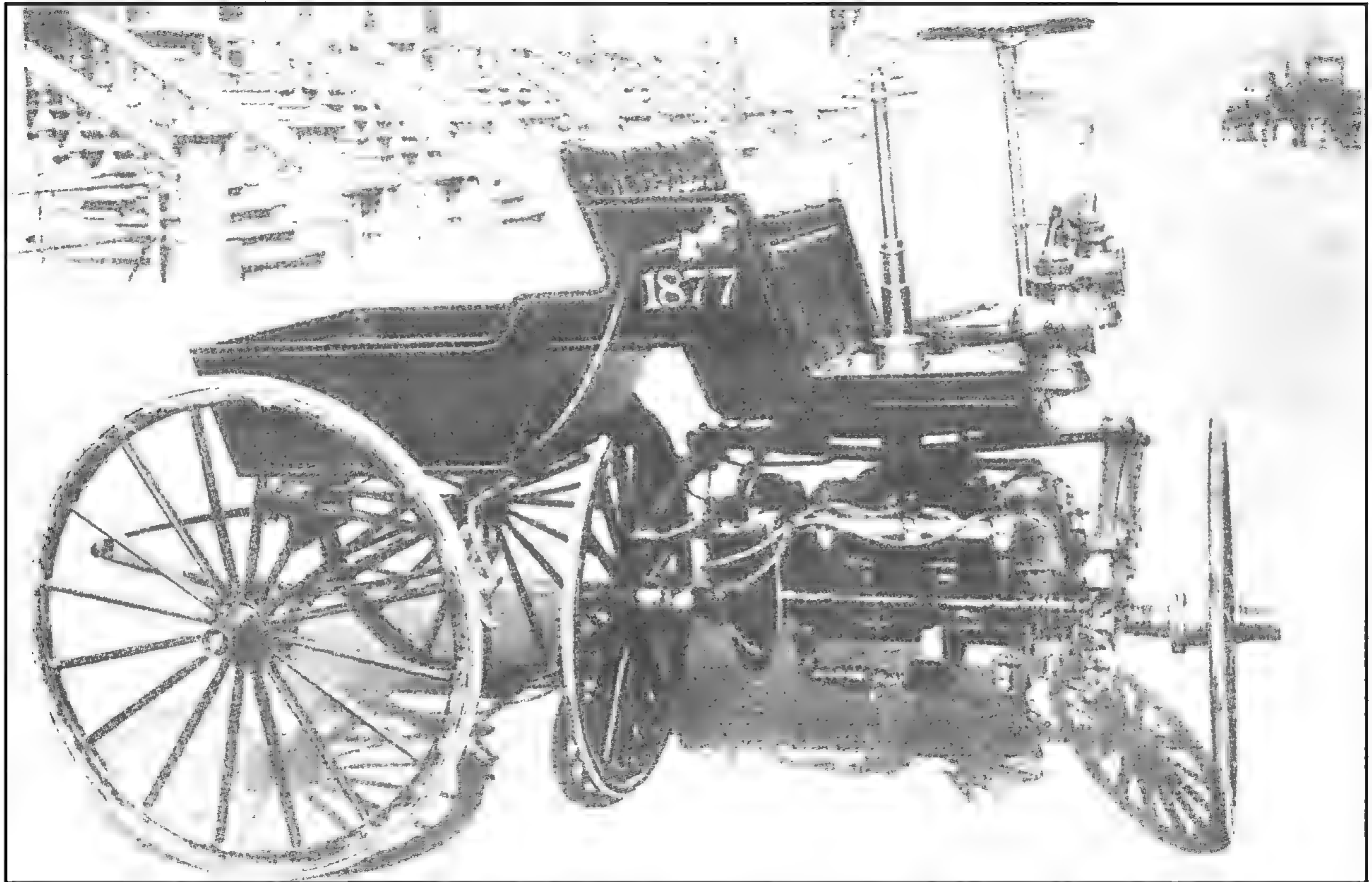
2—A four-passenger car of new and original up-to-the-minute design.
4—A racy, sporty-looking design as ever was built.

ASK THE JACKSON AGENT

or write **C. D. PAXSON, District Sales Manager.**

CLEVELAND, O.

1900 EUCLID
BLDG.



THE ORIGINAL INTERNAL-COMBUSTION MOTOR AUTOMOBILE INVENTED BY GEORGE B. SELDEN, OF ROCHESTER, N. Y.
 View showing original engine mounted on front axle. Car may be backed by turning front wheels half-way around. From the invention of this car in 1877 the great gas-engine automobile industry of the present day may be said to date.

The Literary Digest for December 26, 1914

DODGE BROTHERS MOTOR CAR

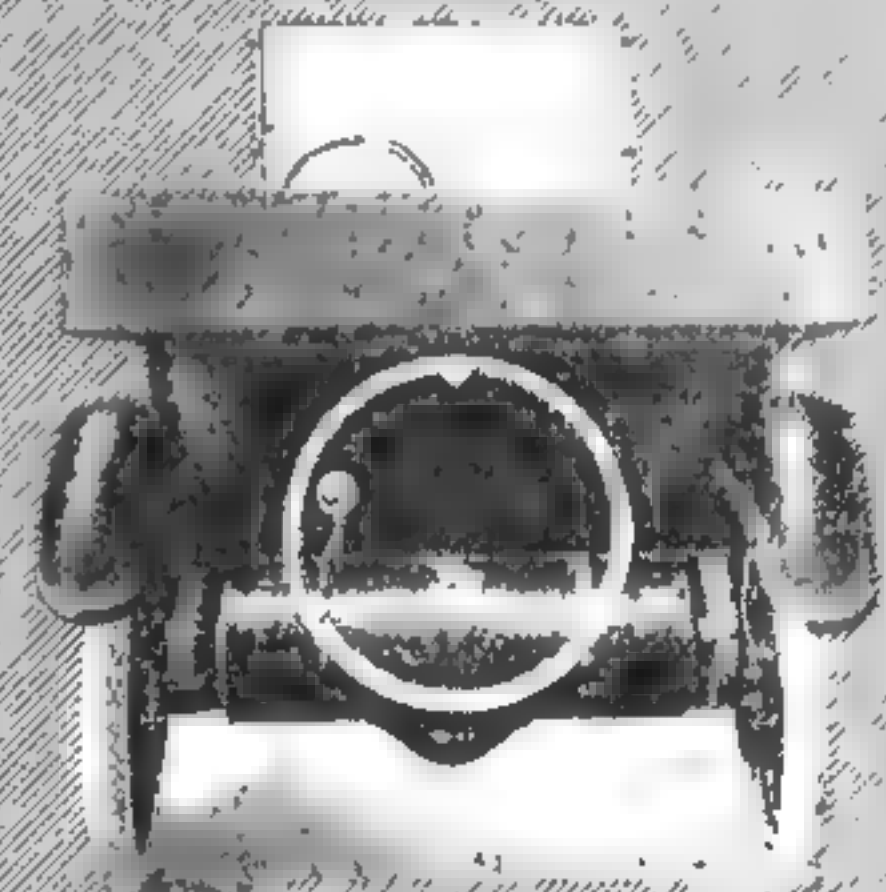
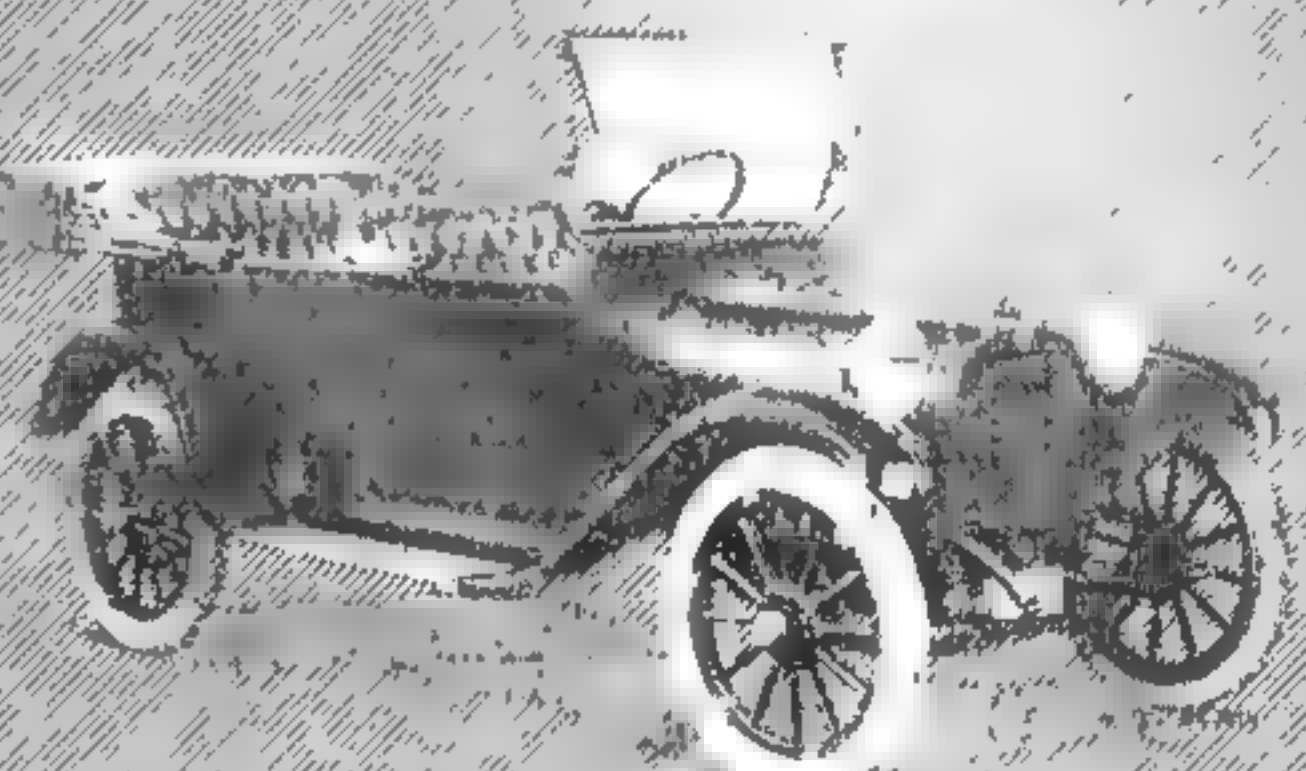
You may find details in which you might have been satisfied with less—none in which you could have asked for more.

An ordinarily good magneto might have answered—this is the highest type of waterproof Eisemann.

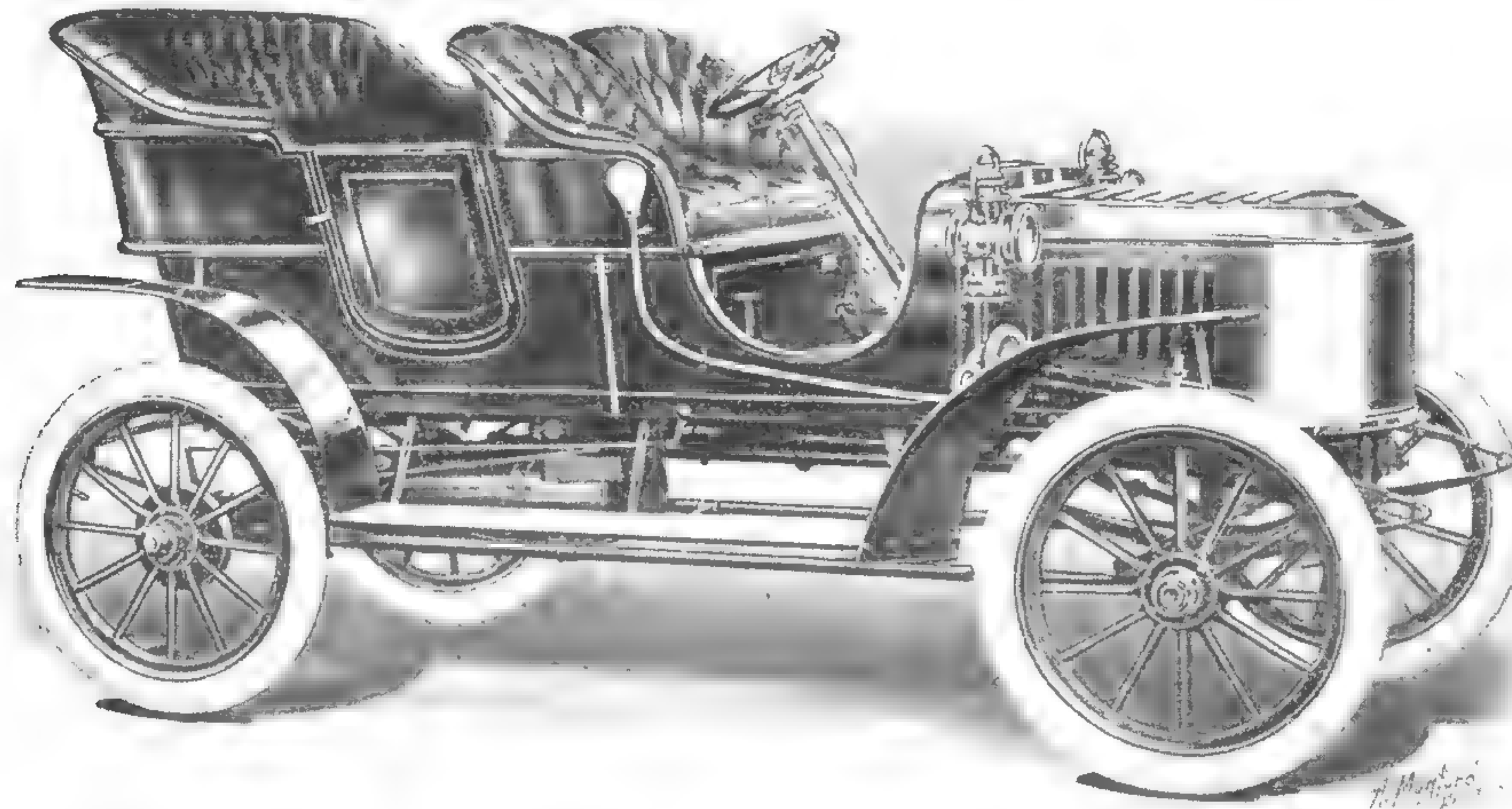
The price of the car complete is \$785
f. o. b. Detroit

Grand Central Palace—Space B1, Second Floor

DODGE BROTHERS, DETROIT



1908



MODEL F. Touring Car, seating five. 23-inch boiler and burner in front, under hood. 3 $\frac{1}{2}$ x 5 inch engine. 20 horse-power.

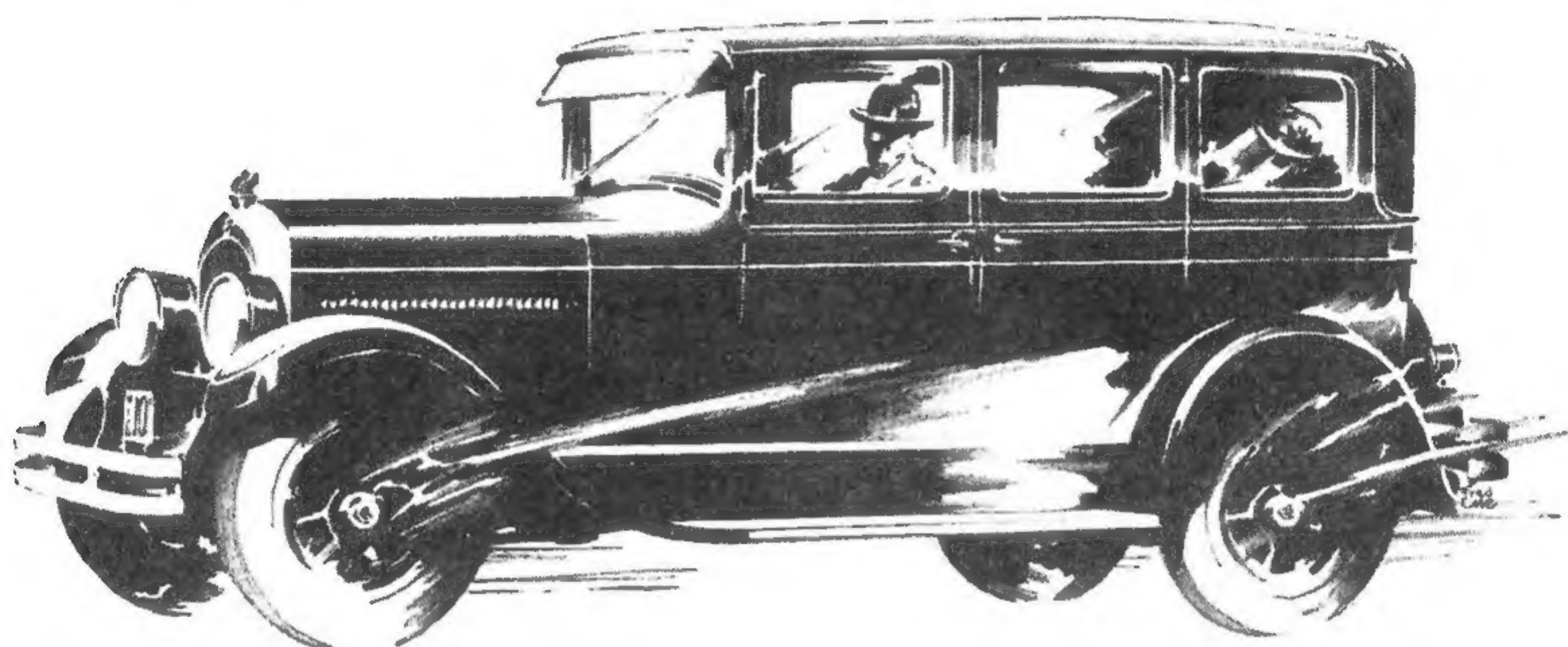
Divided front seat. Throttle and by-pass lever sub-imposed on steering wheel. 34 x 3 $\frac{1}{2}$ inch tires. Wheel base, 100 inches; track, 54 inches. Full elliptical springs. Internal expanding hub brakes, in addition to band brakes on driving gear. Gasolene capacity (tank at extreme rear), 125 to 175 miles (16 gallons). Water capacity (tank under front seat), 40 to 50 miles (30 gallons). Oil lamps, gauge lamp and horn. Ironed for top. Cape top, \$85.00 additional. Price net cash, F. O. B. Newton,

\$1,500

1927

27th to 4th Place in Three Years
 — Ever-Increasing Public Preference

CHRYSLER 70



CRAFTSMANSHIP



Eight body types priced from \$1395 to \$1795, f. o. b. Detroit, subject to current Federal excise tax.

IN the beginning a fascinated public bought the Chrysler "70" for the charm and freshness of its new performance and appearance.

Behind that first Chrysler, and the public's first enthusiasm for its new qualities, are now more than three years of experience.

During those three phenomenal years—years in which public preference swept Chrysler from 27th to 4th place—motor car buyers have come more and more to know the substantial and solid qualities

built into each and every Chrysler by its unique engineering and manufacturing plan of Standardized Quality.

They have found a dependability and long life in the "70"—proved by hundreds of thousands of enthusiastic owners—combined with those elements of progressiveness through which Chrysler has steadily maintained the speed, dash, beauty, luxury, economy and safety of the finer Chrysler "70" of today, as far in advance of its field as at the time of its introduction.

All Chrysler cars are protected against theft under the Fedco System.

Chrysler dealers are in position to extend the convenience of time payments. Ask about Chrysler's attractive plan.

CHRYSLER MODEL NUMBERS
 MEAN MILES PER HOUR



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blank page in original

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Brian D. Szafranski
Elma, New York USA**

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FLOYD CLYMER'S HISTORICAL MOTOR SCRAPBOOK



NUMBER ONE

DELUXE
EDITION
2.00